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ADDRESS OF THE PRESIDENT

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Clayton, New Mexico.

(Delivered before The New Mexico Medical Society, at its Fifty-Second Annual Meeting, at Las Vegas, N. M., July 19-21, 1934.)

We are convening in the fifty-second session of New Mexico medicine; and we are again meeting in the historic little city of Las Vegas where New Mexico medicine was organized. As we look back over that span of years we can appreciate only in a measure what a state medical society meant to those pioneer doctors

You will remember that railroads were not as numerous then as they are now. The only other means of transportation was by horseback or horse-drawn vehicles. Their roads were mere trails, in many places badly eroded by the action of wind and water. It was frequently necessary to travel for many miles in semi-arid districts where there was little or no water.

A doctor in Roswell told me that he came to a state meeting in Las Vegas in the late eighties. He and his wife left Roswell on the same train, she for Chicago and he for Las Vegas. He had to go from New Mexico into Texas, then back into New Mexico, then into Colorado and back into New Mexico before he could get here, and his wife arrived in Chicago several hours before he arrived in Los Vegas.

When I was a boy in my early 'teens I was the horse wrangler for my father who was the only practising physician in Baca County, Colorado, Morton County, Kansas, and Cimarron County, Oklahoma. Whenever my father was summoned by relay messenger on a long distance call it was my duty to ride out into the pasture and drive in a team of ponies and hitch them to a buggy. The messenger's horse was tied on the side and my father and the messenger were off at a good speed. They would drive from ten to twenty miles where they would be met by a relay, and so on until some forty or fifty miles had been covered. These and many other handicaps were commonplace occurrences, and yet they found time to travel these long distances and organize medical societies.

Since then we have invented the automobile and the airplane, we have built highways and telephone lines to the remote sections, but when one asks some doctor why he doesn't attend the medical meetings in our state, he will reply "it's too far away and I can't be away from home so long."

In this fifty-two years of time we have experienced some wonderful changes. During this period we have witnessed some of our greatest medical discoveries. It has been called an age of science, and it also has been an age of great things. We were not content with what we had but we tore down and built on a larger and grander scale. The medical profession built larger hospitals, developed specialties, built up clinics and great medical centers; and yet the physicians of fifty years ago possessed the same standards of character and professional devotion that we insist upon today, and the same standards that will be insisted upon fifty years hence.

With most people fifty years ago the doctor's opinion was infallible. What the doctor told his patient was true because the doctor said so. Today he is expected to prove his statements by scientific reasoning. This has been brought about by higher education; and in order to meet this demand it has been necessary for the doctor to keep well in the lead

in his scientific training. Fifty years ago most medical schools required for graduation from two to three courses of six months each. Today our schools require from three to four years of pre-medical work with four years of medicine and one year of hospital training; so that a medical education today requires considerable expenditure of time, energy and money. I believe that when one completes this course, if he hasn't built a foundation for medicine he certainly has no foundation for anything else. His training has been essentially medical. It is true that some men have left medicine to become eminently successsful in other lines, but they are the exception and not the rule. Dr. DeCosta said that most men who quit medicine went to the devil or to Congress. The old training leaves its mark. Certain beliefs are fixed so firmly that they become as intuitions. They feel, as did Dr. Holmes, who, though he had abandoned medicine for literature, cried out to the members of the profession, "Claim me, hold me, call me brother still."

After the completion of this medical training the average man requires an incubation period of a number of years before he can become self sustaining. It is said that Paget was in practice for ten years before he obtained a fee for a private operation. Agnew was in the fifties before he attained reasonable prosperity. A surgeon can continue to operate only so long as his hand is steady and his eye keen. As a rule, at the best, a surgeon has only twenty-five years in which to make and lay by enough to provide for his old age and the decent support of his family after his death. At any time during those twenty-five years his usefulness may be destroyed by inoculation with a disease or by a crippling injury of the hand. The period of remunerative work in operative surgery is probably shorter and more beset with perils than in any other profession. Members of other professions may go on indefinitely but not the surgeon.

Have we kept pace with our modern civilization? We hear from some quarters that we have not. We are told that we are costing the public too much money for the little good that we are doing. They quote statistics to prove to us that about ninety per cent of the sick would recover without the aid of medical science. They tell us that heart disease is on the increase, that we have not discovered the cause of cancer, and that tuberculosis is still the great white plague. They are trying, and in a measure they have succeeded, to arouse the public to do something against this so-called enormous cost of melical care.

These critics fail to take into consideration that there was never a great enterprise carried to completion without the aid of medical science. We could never have built the Panama Canal without the aid of modern medicine. We could never have converted swamps into habitable and tillable districts without modern medicine. Tropical cities were unsafe for white men until public health measures were put into effect. Only a few years back the American sailors going ashore at tropical ports were required to carry their food and water with them and it was a courtmartial offense to violate this order.

Who but the medical men have made the great discoveries and inventions of medicine? Who has borne the toil and the expense of medical education? Medicine is the most ancient of the professions; it is older than Christianity and more ancient than the civil law. And through all these years, regardless of race, of cast or creed its watchword has been "Service." It stands closer than any other calling to the secret of eternity, and watches death, ever busy with her shuttle, as she weaves her somber thread into the warp and woof of the affairs of men. It seeks to mitigate human suffering and to prolong human life. These have ever been its slogans, are still, and always will be; its cloud of smoke by day and its pillar of fire by night. .

The public does not want a reduction in medical standards, but it does want a reduction in medical fees and some one else to pay the bills. Some advocate that the greater part of this expense should be paid by taxation, so that the larger corporations should bear their part of this burden. Most medical men know that the corporations are not putting out anything. They always manage in some way to take it away from the employee or the consumer; and whenever public funds are involved, the politician usually controls them.

There is another group who advocate health insurance, but this plan entails considerable

administrative expense and it rapidly drifts into commercialism.

When the United States took control of Cuba at the close of the Spanish-American War a plan of health insurance for the Spanish populaiton of the Island was in operation. This seemed to be working very well, so other insurance groups were organized to include other inhabitants until the system became universal. I find in a recent report of the American Medical Association that the money of some of these associations was used to erect club houses and theaters instead of spending it on modern medical equipment; and that only the medical men who were directors in the association were receiving a salary as much as thirty-five hundred dollars per year. The doctors who were doing the work were working long hours for a salary of twenty-five dollars per month, and some of them were compelled to see as many as forty patients per hour. The better class of the medical profession struck, but they lost the strike because the better class of the people all belonged to the societies and there was no chance for private practice. People will stand for a lot of inconvenience and poor service if it does not cost them very much.

Our system in America is not so bad after all. During the depression thousands of people have gone hungry, ragged and cold, but not many people have suffered from lack of medical attention. The doctors have done their part. Why all this noise about the high cost of medical care when the public has not paid for it? I do not know of many people who have paid more for medical services than they were able to pay; but I know a lot of them who have not paid me what they were able to pay. Most people who are reasonably prosperous can raise from six hundred to a thousand dollars for an automobile almost any time. but if they pay half that sum to some group of doctors and a hospital to save their lives, they think that they have been robbed and they talk about it for the next ten years.

The medical profession of today is laboring under a great handicap; it is a house divided against itself. All over the country medical organization is greatly retarded by jealousies and petty personal grievances. We will not support a worthy cause for fear that our competitor will benefit from it. We refuse to take an active part in our local society because it is run by a clique that we do not like. We do not want the younger members of the profession to get control of the society because we want to keep them in subordination. The younger men want to control because they think that the older men have had their day and that they have no place in modern medicine.

Not long ago a doctor said to me: "So many of our doctors seem to have no conception of medical ethics. I do not believe that they teach ethics in the schools now." I am convinced that the trouble is not with the schools. When a young doctor locates in a community he finds the older members fighting one another with any weapons that may be at hand. He sees them attempting work far beyond their ability to perform. They do not give him a very cordial welcome. They leave him to work out his own salvation. They do not invite him to join the society, they prefer to wait to see how he is going to "line up." He hears that they are telling the public that he has had no experience and that it will be several years before he learns anything about medicine. Can you expect that fellow to "shoot square" in return for such treatment? Is it any wonder that he resorts to medical banditry? The quack is always ready to extend to him the hand of fellowship because he needs him in his business. He must make a living, he must pay his school debts. If the medical profession will not help him to go right, he can find plenty of help to induce him to go wrong.

We must have these young graduates if we are to maintain the high standards of medicine. They possess an education and a training that many of us did not get when we went through school. They can teach us the theory of modern medicine and we can show them its practical application. We are the doctors of today and they will be the doctors of tomorrow, and the standards of tomorrow will be greatly influenced by the instruction we give today.

You young men have enlisted under the banner of service, you have aspired to a noble calling, you have high ideals. In the course of your career you will meet with many discouragements. At times you may not possess

the necessities of life, you may be handicapped by disease; but do not lose sight of your ideals. If you possess the three qualifications of honesty, sobriety and energy you cannot fail.

You must remember that your medical education is the culmination of the experiences of your predecessors. You must also remember that the medical profession is now and always has been controlled and managed by men of maturity. They possess an experience which cannot be acquired from the college curriculum, but by years of study and practical application in their chosen line of work.

My advice to you is to read good books and magazines. Keep up with your post-graduate work, cultivate the acquaintance and friendship of worthwhile people, and your profession will be proud of you; and you shall have the crowning satisfaction in the knowledge that you have been a real service to your fellowmen.

The older members of the profession have blazed the trail and are pointing the way to the heights that you may attain. One by one they are falling by the wayside and shifting their burdens to you with the instructions, "Carry on, and be faithful to the trust."

Today, we honor the pioneers of New Mexico medicine. Their wives have kept the home fires burning. They have maintained the lonely night watches while their husbands were out on errands of mercy, sometimes on horseback in severe rain storms in summer and blizzards in winter, carrying on and hoping that some day their dreams would come true.

Their names will seldom appear in history. It has been said that history has no place, not even in its margin, for the school teacher nor the country doctor; but the history of a country is not made up from its wars nor its political changes, but by more subtle influences which shape the destinies of its people. When the final chapter of the history of New Mexico is written, the principal character in that great drama will be, not the soldier nor the trader, but the pioneer doctor. In that final achievement of the white man in his endless march toward the setting sun, the winning of the West, three symbols will dominate, the rifle, the plow and the saddle bag, and the greatest of these is the saddle bag.

TEMPERATURE IN VACCINE THERAPY AND BIOLOGICALS.

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(Read before the El Paso County Medical Society.)

There is a right way and a wrong way to do everything.

From Elements of Biologicals, by Bosanquet and Eyre, in their book on Serums, Vaccines, and Toxins, Third Edition, we find, "While sufficient accurate observations are lacking on potency of vaccines, it is usually thought that with few exceptions (in the case of those bacteria in regard to which immunity depends partly upon the elaboration of lysins) vaccine may be used with confidence for a considerable period of time. Antibodies have been produced in good quantities with typhoid vaccines one and a half and two years old. They should be kept in a cool dark place."

It is to be brought out in this paper that vaccine therapy and biological dosage differ according to their potency, which depends on: (1) process of manufacturing in laboratory, (2) strength or number of bacteria contained, (3) temperature 45°F. to 50°F. or its resulting precipitation and agitation at room temperature, (4) end clinical results.

We will assume you have the right technician to make your vaccine. The process in laboratory production of vaccines is an intricate procedure when rightly carried out, although the bacteria may be killed by heat or chemical means. From your clinical experience you will confer with your technician on the number of bacteria per cubic centimeter to be contained in your vaccine.

Heat and cold precipitate and agitate solutions and also change hormones—or whatever you wish to call the agent you expect to use in your vaccine. In the chemical, serological, biological, or vaccine laboratory, heat and cold play an important part in the end results of what you are trying to do. It is an error committed by the room-temperature advocates that they do not use an autoclave and have a scientific laboratory and clinical basis to sustain their contention. The National Institute

of Health have not, evidently, considered scientifically the worth of temperature in its effect on vaccine. This can only be tested out in the clinic by comparison, variable room temperature vaccines versus 45°F. to 50°F. vaccine temperatures as advocated in this paper. My experience in private and clinic practice for twenty years, engenders the opinion that the potency of vaccine or biologicals, if 1 and 2 of paragraph 2 are correct, depends on temperature, when the technic is to be considered, between the laboratory and the patient.

Ludwig Hecktoen's 1929 questionnaire in a vaccine survey to 1261 physicians, on their favor or disfavor of vaccine therapy, gave only seventeen as favoring the use of vaccine. Assuming that vaccine therapy has what they thought a fair trial, the majority who voted against its use were surely wrong in their deductions on end results as not reliable, if they ignored the 45°F. temperature being maintained constantly from the manufacturers to the doctor's syringe, as given in this constructive criticism on temperature in vaccine therapy and biologicals.

I take it that the profession have gone sour on vaccine therapy because (1) the change from autogenous specific strains to stock vaccines brought loss of confidence, although stock is instantly available while autogenous takes time to make; (2) wrong method of specific selection; (3) temperature of vaccine too variable, it should be constant; (4) massive dosage as advocated by Wright for prophylaxis and the same large dosage in acute infections where you wish desensitization in an already infected person, instead of small doses and often.

In autogenous laboratory-made vaccines—which took time, money, apparatus and knowledge to prepare—there was much theory and practice to follow, but the individual strains of bacteria in the autogenous vaccine gave certain results. Time and price were something to be considered, so stock vaccine was started by Mathews in 1908, and the downfall of vaccine therapy immediately began, for reasons before stated.

Temperature was unconsciously kept nearer 45°F. during the early autogenous-vaccine time, than afterwards with the stock vaccine, because the doctors were more closely connected with the laboratories producing the autogenous and where the doctor was uninformed concerning its potency, the laboratory technician was more apt to give advice about standardization methods of treating the autogenous to preserve its potency, than the uninformed druggist, whose chief concern is sales of stock vaccine. Likewise, the druggist may have ice in his refrigerator or a good constant ice-box at 45°F. all of the time; but what happens when he cleans or de-ices the box, especially if the worker is slow and the weather hot? Again, when the druggist receives an order for vaccines to be sent to the doctor, many times other articles are included in the order, this drug clerk for the first time breaks the chain by a variable temperature enroute, whereas the vaccine should be conveyed in a thermos bottle which, when not in use, is always kept open in the ice-box. In this way and only in this way can the doctor receive a standardized potent vaccine which has been kept at 45°F. from manufacturer to doctor. Unless this constant temperature is maintained, clinical results will be disappointing and unreliable, and this disappointed doctor will join the other vaccine nihilists in time.

Inquiries from our El Paso wholesale druggists, returned the information that manufacturers are not consistent in maintaining a standardized temperature in their shipments to them. Winter months there is not so much loss; but shipments received in El Paso during the summer months, by our local wholesale druggists, are in containers that are not temperature-resistant; hence, impotent vaccines and biologicals. Who knows where the packages will be placed while enroute—by a door, a radiator, or a window, to absorb heat or cold.

The doctor should have the same technic as the druggist for constant temperature, if he has a visit to make and vacccine to give. Reach in his refrigerator for an open thermos bottle, place inside the bottle the vaccine to be used, screw on the top of bottle, and he will have a potent agent to use at the bedside. Convey his vaccine back to the refrigerator in this same manner, and the temperature changes should not be more than 5° difference if this doctor has not been too dilatory in returning his vaccines to thermos bottle after filling his syringe. This syringe should be normal temperature. When in office work and it is possible, take the syringe to the ice box to fill with vaccine,

rather than the vaccine to the table to fill and possibly result in higher temperature; if for many injections, use thermos bottle on table, as if on bedside visits.

The United States Army have a general order that smallpox vaccine be kept continually at a temperature of 45°F.; but if they fail in technic and allow their smallpox vaccine to go above 55°F., who knows positively whether this vaccine is potent or impotent? I am of the opinion that many a smallpox vaccination gives negative results because of faulty temperature technic where the vaccine point has been used too warm.

According to Walter E. King, M. D., of Parke Davis Company, Research and Biological Laboratories, in a letter dated December 6, 1933: "It has been observed that Pertussis Vaccine should be constantly stored in the refrigerator and that under such conditions Pertussis Vaccine is advantageous as compared with the same vaccine kept at room temperature." Possibly the cause of this potency being lost is the precipitation and agitation of the vaccines from variable temperatures from a South Dakota room of 10° below to an Arizona room temperature registering 115°F. above. We must have a point to tie to if we wish constant and positive clinical results, else our end results will fail in the final check up.

We have not been able to find in any published article mention made of a standardized temperature to be kept continually from the manufacturer to the doctor's syringe, as herein advocated. The majority, if not all of the writers on vaccine therapy, do not mention temperature of vaccines.

In gonococcic infections, you do not get a lasting immunity and no permanent sensitization involved; hence, the accuracy of the vaccine test as an example on temperature end results in vaccine therapy. Pearson, quoted by Kolmer, in Infections, Immunity, and Biological Therapy, out of one hundred cases had ninety-six positive results from the following: Massage seminal vesicles, prostate and Cowper's glands, to liberate any toxins after giving a massive dose of gonococcus vaccine as a provocative measure. The patient was told to hold the urine from midnight until the next morning, when he took a smear from a centrifuged specimen. This was continued for four days, altogether, four smears. Inasmuch as temperature is not mentioned and undoubtedly not considered, it was the probable reason for the four failures.

Referring again to Bosanquet and Eyre: "The administration of a large dose of gonococcus vaccine in a doubtful case or one showing signs of active inflammation, is followed by a febrile reaction in 96 per cent of positive cases and by a local reaction in 82 per cent." Bosanquet and Eyre commend this procedure in settling the question as to whether a patient who has suffered from gonorrhea should be permitted to marry. In all probability these failures were due to the non-consideration of temperature-neglect of their vaccine.

Kohler, on "Vaccine Diagnosis of Gonorrhea," reported intracutaneous injections of 0.15 cc. gonorheal vaccines containing from 3 to 10 billion killed organism per cc. According to his observation, reactions which appeared and lasted for a period of more than 24 hours seemed to him to be specific in the diagnosis of gonorrhea either in the acute or chronic stage. As the Germans are very thorough in their technic and he reports no failures, I take it that he consciously or unconsciously employed the before-mentioned temperature technic.

CASE 1. Mr. S., aged 24, in appearance healthy. Wished to get married and wanted positive evidence that a G. C. infection six years before had left him cured ready for the marriage stage. Four glass urine specimens, clear, all four. Meatus dry. One cc. of G. C. 45°F. vaccine injected subcutaneously brought no reaction after 24 hours. Patient discharged cured, no infection and in the ten years interim nothing has shown up although marriage was consummated.

CASE 2. Mr. B., aged 24. American, married, wife complaining of certain vaginal symptoms, came to office and wished test and advice, having heard of Case 1. Prostatic examination, patulous; previous infection denied. Four glassed urine tests: first glass full of shreds, meatus dry. One cc. of 45°F. temperature G. C. vaccine subcutaneously produced an anaphylaxis with accompanying symptoms of anxiety, fever, headache, trembling, aching, and didn't care if he died, but was certain he would never take another test shot. The skin reaction redness was more than pink and appeared in less than ten hours and did not fade away for more than 48 hours. The patient returned and was told that he had remains of an old g. c. infection. Patient was trapped into the acknowledgement that six years before he had taken a course of treatment as generally was given for g. c. infections, because he had heard that someone going with his

girl had a g. c. infection. Inasmuch as this case had been caught "with the goods" and did not wish to assume the responsibility, he did not take treatment; but the wife did, and in her case smears were positive, as well as the vaccine test.

Do not expect good results from your vaccines or other biologicals when taken from a warm satchel, shelf, or table, into a warm syringe, as you will be disappointed either in your diagnosis or your treatment.

COLLAPSE THERAPY IN PULMONARY TUBERCULOSIS

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(Read before the Forty-Third Annual Meeting of the Arizona State Medical Association, held at Prescott, June 7 to 9, 1934.)

In dealing with the management of pulmonary tuberculosis, the time-worn subject of early diagnosis is of too great importance to pass without mentioning. The present high death rate in tuberculosis is largely dependent upon two factors; first, failure to make the correct diagnosis while the condition still has a favorable prognosis; and second, failure to use the methods of treatment which will, when used properly, offer the best chance for cure and at the same time markedly shorten the length of convalescence.

Failure to make a diagnosis early is not necessarily incompetence on the part of the attending physician. Often the patient does not consult a doctor until the early stage is passed. Sometimes the internist sees only infrequent cases of tuberculosis and consequently is not always tuberculosis-minded. Then, too, there are moderately advanced cases with indefinite symptoms and obscure physical signs, in which the x-ray film alone will tell the true story. It is probably conceded by all phthisiologists that the x-ray is today the greatest single guide in the detection and management of cases of pulmonary tuberculosis. The physician should always and forever be looking for early tuberculous lesions, and, without exception, any and every patient presenting himself with either a history or physical signs, or both, in any way suggesting tuberculosis, should have an x-ray of the lungs.

It is not within the scope of this paper to go into the signs and symptoms of tuberculosis; however, we want to invite your attention to two facts: first, not all tuberculosis begins insidiously and progresses as a chronic disease; and, second, not all insidious or chronic pulmonary lesions are tuberculous. Accurate, differential diagnosis is necessary.

Not infrequently, tuberculosis begins with symptoms of an acute illness, and often is mistaken for lobar pneumonia. In fact, it may be a tuberculous pneumonia, and have all the signs and symptoms of a pneumococcic or streptococcic disease. If it be a tuberculous process, however, it will not clear up so rapidly nor so completely as a pneumococcic pneumonia; therefore, every patient having a slowly resolving pneumonia with a continued productive cough and a low-grade temperature after the acute symptoms have subsided, should have not one, but many, sputum examinations for tubercle bacilli, and an x-ray of the chest.

More frequently than this, there is a type of tuberculosis which begins acutely but less dramatically and is erroneously called influenza, cold in the chest, or bronchitis. Here, also, it is our conviction that every patient with these symptoms which fail to clear up as readily as we are justified in expecting, should also have the same careful examination.

If these procedures are followed, and a careful differential diagnosis is made, a large number of patients will be spared much suffering, and often unnecessary deaths will be prevented.

Furthermore, a patient who has had a pulmonary hemorrhage and, after a few days' rest in bed, is returned to work without an x-ray of the chest, has been grossly mistreated. Yet such a gross omission as this is no greater than relying on bed-rest over an indefinite period of time without consideration as to the need of local rest; by local rest we mean some form of collapse therapy.

The clinical material which serves as a basis for this paper is drawn from a private group practice of many years in a community which is a Mecca for tuberculous patients, and from the Southern Pacific Tuberculosis Sanatorium,

a hundred-bed institution located in Tucson. In this institution and in our private practice, strictest bed rest is enforced, but it is not relied upon solely.

In this Sanatorium we have an average of 70 to 80 per cent of our patients under some form of collapse therapy, and at intervals that percentage has risen above 80 per cent. It is often used in those patients who appear hopeless at the start, and we have frequently benefited patients and sometimes even secured an arrested disease in patients whose outcome, without such help, would be fatal.

Collapse therapy in all types of pulmonary tuberculosis is the greatest boon that has come to the tuberculous patient since the principles of bed-rest and good food were generally accepted as fundamental in the treatment of this disease. It is our serious conviction that, in certain cases of pulmonary tuberculosis, particularly those with cavities, collapse therapy is just as much indicated as surgery is in acute appendicitis; because, without this, the hope of ultimate cure is greatly lessened. The absence of acute symptoms and the tragic demise of the patient make us none the less responsible than if we were to permit a patient with an acute appendicitis to go without surgery.

There are many beautiful stories of early recoveries from bed-rest alone. We have all seen them. No one is more convinced than we are that complete bed-rest is the fundamental and the most essential principle in the treatment of this disease but our purpose is to show that it should not be depended upon solely. Very little has been said by the advocates of bed-rest without collapse therapy, of those patients who have extensions in the same and in the contralateral lung, as well as in other organs, while the patient is at rest in bed. Neither do they write about those who have cavities form and those who have hemorrhages from these cavities. We hear no one taking credit for the case with an open cavity who, because of a continued positive sputum, is a menace to every one with whom he is contact. We hear little of the patient who, by waiting for bed-rest to cure him, has had pleural adhesions form and has, therefore, lost forever his opportunity for a successful pneumothorax.

The different forms of collapse therapy will be enumerated in the order of the frequency of their use in our hands: (1) pneumothorax, (2) phrenic interruption, temporary and permanent, (3) intrapleural pneumonolysis, (4) thoracoplasty, partial and complete, (5) scalenotomy, (6) extrapleural pneumonolysis, (7) oleothorax, (8) intercostal neurectomy.

These procedures can be used separately, collectively, or successively. We want here to advocate and emphasize the principle of using them as successive steps until cavities have been collapsed, and the patient has been rendered free of sputum and bacilli. In other words, we feel that the only way that the best interest of the patient can be served is to start the use of collapse therapy with one object in view—placing the disease process at rest, even if all of these procedures are required. If the first procedure is not successful in accomplishing this, then an additional one or more of these methods is to be used in conjunction with it, or as a subsequent procedure, until absolute collapse with arrest of the disease has occurred.

We feel that the use of collapse early in the disease is often overlooked. Many men are coming more and more to look upon collapse as a valuable adjunct in the treatment of tuberculosis, but too often they use it as a last resort. So often, the waiting is the one thing that changes a patient from a hopeful to a hopeless case. One should always have in mind those dangers of delay which have been pointed out earlier in this paper.

Our methods of procedure of studying and handling patients can best be illustrated by following a patient into the Southern Pacific Sanatorium. When a patient enters this institution and when his history, physical examination, laboratory studies, and x-ray films are completed, his case is presented before the Staff. Depending upon the duration of the disease, the amount of involvement, the location of the lesions, the amount of previous rest he has had, and how he has reacted to it, the decision is made as to what therapeutic measures will be instituted at this time.

If the disease is of short duration, minimal in character, and the patient has had no previous rest, he may be put on complete bed-rest for a period of thirty to sixty days, when he is studied again. Then, if there is not ample evidence that there is a retrogression of the le-

sion, immediately help is given him by some form of collapse therapy. On the other hand, if the disease is more advanced, if he has had a previous period of bed-rest with evidence of a progressing disease process, especially if he has an open cavity, then we immediately begin to supplement his bed-rest with collapse therapy. We consider an open cavity is always a menace to the patient, and the patient who has a cavity remaining open is always regarded as being in jeopardy, regardless of size or type of cavity. Consequently, in cavity cases, collapse in some form is always undertaken at once. The classification of cavities as brought out by Pinner in 1928 is used as a guide in treatment.

PNEUMOTHORAX

Pneumothorax is usually the first thought in collapse therapy and is indicated wherever the disease is sufficiently advanced to justify collapse therapy. The selective, or more properly an ideal pneumothorax, is that which collapses the diseased area only and allows the healthy lung to continue to function; in early cases, it is the one which is most desirable.

At the present time there are ample figures to prove that, in collapse by pneumothorax, for instance, the cures are in direct proportion to the amount of collapse the patient receives. Therefore, where, on account of adhesions, a complete collapse is impossible, a Jacobeus operation or some other method should be used to cut the adhesions; if this is impractical a phrenic interruption may be effective. It is a deplorable fact that many cases of unilateral pneumothorax with a good contralateral lung, where only partial collapse has been obtained, have been and are being kept up without any other procedures being instituted, while the patient with his open cavity progresses gradually until death. This is also true of phrenic interruption.

Pneumothorax has the advantages that it can be continued either unilaterally or bilaterally, or discontinued on one or both sides when the symptoms indicate the necessity.

Contrary to the once popular opinion, the use of pneumothorax in bilateral tuberculosis does not necessarily aggravate the condition in the contralateral lung. More often, a good collapse of the lung with the more advanced lesion, by a diminution in the general toxicity and probably a transference of pressure through the mediastinum, allows the opposite lung to improve. This is so commonly seen that we do not feel that bilateral lesions constitute a contra-indication to pneumothorax, but rather an added indication. Furthermore, in cases with bilateral disease when the better lung fails to improve, while its opposite has been collapsed by pneumothorax, we have no hesitancy in instituting pneumothorax bilaterally, or doing a phrenic interruption on the side with the better lung. Vital capacity studies are important in such cases.

Pneumothorax, when it accomplishes complete collapse, is successful in producing a cure in about 80 per cent of the cases of unilateral involvement, and a smaller percentage in bilateral disease.

A difficult problem for decision is the length of time pneumothorax should be continued. Usually the patient is loathe to give up the thing which he feels has saved his life—the attending physician is usually in accord with him. The decision is made by consideration of the pathology that was present when the pneumothorax was instituted and the present x-ray appearance of the lung. In general, we may assume that a successful pneumothorax will have accomplished its purpose in two to two and a half years, if type 1 or 2 cavity was present at time of its induction, and sooner if there was no cavity. Furthermore, the compressed lung is capable of expanding and resuming its function in most cases which are not collapsed for longer periods.

COMPLICATIONS

There are two serious complications to pneumothorax: (1) spontaneous collapse, and (2) development of an effusion which may later become purulent. The spontaneous collapse is always looked upon as serious. Some may survive without any interference—we had one patient who had three separate spontaneous collapses. It never became necessary to interfere on any occasion, and he is well today. This is the exception. More often the air must be aspirated, and, if this is not sufficient, a small catheter is introduced, over the outer end of which is fastened a condom with a small slit in the end. This acts as a valve, allowing air to escape but not to return.

Fluid develops frequently—more often when a complete collapse is prevented by adhesions and when positive intrapleural pressures are used. It is our practice to aspirate the fluid

when it forms. We feel that the risk to the patient is greater in leaving it than in withdrawing it.

PHRENIC NERVE INTERRUPTION

Recently there has been considerable unfavorable criticism of phrenic nerve interruption. This criticism grew out of the fact that all of the original operations caused permanent paralysis of the diaphragm. We agree with these objections. However, we avoid the unfavorable results of a permanent paralysis by doing a temporary nerve interruption, devised by Goetz, advocated and popularized in this country by Dr. John Alexander. The paralysis of the hemidiaphragm, when the operation is performed in this manner, persists four to nine months, when the function gradually returns. When the diaphragm begins to function again, and if the patient still needs the benefit of its paralysis, a second similar operation may be performed easily. In some patients we have repeated it the third time and have a diaphragm which is capable of ultimately resuming its function.

We find the use of phrenic nerve interruption is as important in conjunction with other measures as it is when used independently. Many an unsatisfactory collapse by pneumothorax can be converted into a satisfactory measure by the use of this minor operation. This is especially true in those cases with adhesions to the diaphragm. The relaxation obtained will often allow a cavity to be collapsed by the pneumothorax, which, before the paralysis of the diaphragm, was continuously pulled open by every cough and respiratory movement. It is a matter of frequent observation that, by the use of a combination of these methods, additional beneficial results may be accomplished amounting to 25 to 35 per cent of the heretofore unsuccessful cases.

Temporary phrenic interruption is used on a patient who has had a successful pneumothorax long enough and the lung is going to be permitted to re-expand. Thus the once diseased lung is protected from full function for several months longer.

Phrenic interruption has another important function as preliminary to complete thoracoplasty. Its use here is to test the contralateral lung, and, too, a high rise of the diaphragm may make it unnecessary to remove as many ribs as would otherwise be necessary.

OLEOTHORAX

Oleothorax is a valuable supplement to pneumothorax, and has a distinct place in collapse therapy. It is not uncommon to note that often, with the continued use of pneumothorax, particularly where only partial collapse has been obtained as a result of adhesive pleuritis, the pneumothorax space becomes reduced. This indicates that the collapse is soon to be lost through this process. The collapse can frequently be maintained for an indefinite period of time by displacing the air with oil. This procedure is adapted only to those cases having the lower part of the lung adherent to the pleura and chest wall; this prevents the oil from resting on the diaphragm.

The preparation with which we have had the greatest success is ordinary Wesson oil. This causes but little, if any, reaction, and prevents by its weight further reduction of the pleural space. Our experience with Gomenal or other antiseptic oils has been most unsatisfactory.

SCALENOTOMY

Scalenotomy is used in moderately advanced apical tuberculosis, usually in conjunction with phrenic nerve interruption, with the hope of effecting a cure by this minor operation and avoiding the more formidable procedures. It adds additional rest to the apex by relaxation and also affords some restriction of motion of the upper three ribs.

This procedure probably has not been as widely used as it should have been, especially in the earlier cases. Our experience with it has been most satisfactory.

EXTERNAL PNEUMONOLYSIS

External pneumonolysis, while not as popular as the other procedure, certainly has its place, particularly in the very sick patients who have not yielded to the less drastic measures and where there are specific contraindications to thoracoplasty. In this type of cases, it is indicated: (1) in a single, small, apical cavity with a good contralateral lung; (2) with involved contralateral lung, or bilateral, apical cavities; (3) in some cases of posterior thoracoplasty where the cavity has not been successfully closed.

Materials used in this procedure are muscle, fat, gauze, rubber dam, and paraffin.

Complications to be considered in this procedure are (1) rupture of external cavity wall

during operation, with infection of pleural space and resultant empyema; (2) interference with cardiac function due to excess pressure, (3) where paraffin is used, perforation of wax through cavity wall into a bronchus, with extrusion of wax.

INTERCOSTAL NEURECTOMY

Intercostal neurectomy has more limited use in collapse therapy than other measures. Its field of greatest usefulness is in those patients in whom the other minor procedures have failed to effect an arrest and whose present condition contra-indicates thoracoplasty. It is used with the hope of the patient improving to such a point that he may be a suitable risk for thoracoplasty.

THORACOPLASTY

If all other measures fail to accomplish the desired result, or if the case is such that it is obvious that other procedures can but cause a waste of time, we resort to an extrapleural thoracoplasty, either partial or complete, or one that is bilateral and partial. The details of this procedure will be omitted. Suffice it to say, many cures have been effected by virtue of thoracoplasty which would, with anything less radical, certainly, surely, and fairly rapidly, have resulted in death.

The attitude of patients regarding these measures is significant. Very frequently we have patients who ask when they will get their collapse procedure started and even get impatient because it is not done immediately. This is especially true in the Southern Pacific Sanatorium where there is always a large percentage of patients under collapse therapy. Furthermore, even though looked upon as radical by many, it is not uncommon to have patients come to us of their own volition to ask if they are suited for thoracoplasty.

In closing, I want to emphasize again the opening thoughts. Two factors are largely responsible for tuberculosis being of such tremendous importance—first, failure to make the correct diagnosis while the prognosis is good, and while cure may be effected with a minimal morbidity; second, failure to use the methods of treatment which will offer the best, the surest, and the quickest prospects for a cure.

SUMMARY

1. The importance of early diagnosis of pulmonary tuberculosis is discussed.

2. The necessity of collapse therapy in addition to routine bed-rest is emphasized.

3. The importance of using the methods of collapse individually, collectively, and successively, is stressed.

.4 The various surgical methods used, with their indications, contra-indications, and complications, are discussed.

DISCUSSION OF PAPER OF DR. O. H. BROWN ON "FOOD ALLERGY"

DR. G. WERLEY, (El Paso), Opening Discussion: Dr. Brown has been a life time student of this subject, and I do not feel like talking allergy in his presence. Allergy stands next to infection as a cause of human disability and disabling symptoms. The main difference in the pathology of allergy and infection is that in infection you have a living cause and permanent damage. Allergy starts in the same way but you do not have suppuration, and as a rule no pathological lesions remain after the attack is over. But, on account of the pathological swelling, as in the appendix for example, you will have the same symptoms, colic, pain, tenderness, and so forth. Allergy simulates organic disease and surgical conditions very closely, and you may see an abdomen with three or four scars, from which organs have been removed, and the patient is in the same condition as before. You can do something for these by taking up the matter of food allergy with them. Many people seem to think that food cannot do any harm. It was made by the Creator for man and cannot harm him. I do not think that fish was made for man to eat any more than man was made for fish to eat. The business of putting food into the stomach is not a simple thing; if the stomach could speak, it would have many complaints against the food given it. When allergy and infection exist together, the relief of the allergy will help the infection. Taking off the load some place is important in sickness of any kind. Often relieving the allergy will permit the machine to function normally again. I am not discussing the paper except to commend it. In taking food histories, general questions are not sufficient. You have to be more definite and specific, and you will finally get the truth about the things the patient would not otherwise think of. Ask about acute indigestion or ptomaine poisoning, and they will reply "I ate fish (or strawberries) and nearly died."

I have been trying to do some work on allergy in connection with heart disease. I have found difficulty in giving relief to angina and painful conditions of the heart; have used nearly all the drugs available. Then I became interested in allergy in connection with heart ailments, and have

record of some hundred cases of one type or another with good histories in which 90 or 95 per cent will give history of allergy. Have tested about fifty cases and got reactions to one or more allergins, some to very many.

One illustrative case was a man about forty years old, who has an attack of angina every morning when starting his car. He has taken all the usual drugs. When skin tested he reacted to more than twenty allergens. His wife cooperated and eliminated the reacting foods, and he has not had an attack since.

A woman, age 26 or 27, from the Mormon colony in Mexico. Had so much angina could not sweep the floor, make bread or do any house work. Was given drugs but without effect. I tested her and found her sensitive to a few foods; among them was fish which she had been eating freely. This was stopped and she can do her work without angina except after great exertion. Simply taking the load off her heart was effective.

We are taught that we get over allergy as we get older. A lady of 72, who had never had angina before, developed the condition. Put her on the elimination diet of Rowe, or the addition diet of Brown. Working along that line, she lost weight, and instead of having an attack every time she ate anything, she was practically free. Paroxysmal tachycardia comes in the allergy group.

DR. K. D. LYNCH (El Paso): Why do genito-urinary patients develop allergy at a certain time of life when they have not been having it before? Allergy patients can usually be divided into those who have allergy early in life and those who develop it later. The treatment must not slight the allied organic conditions, and in genito-urinary conditions there is an allied organic disease. In genito-urinary cases with severe migraine headaches, dilating the ureters will frequently give results. A patient may have hives in the bladder and the constriction of ureteral orifices must be taken care of.

DR. W. WAITE (El Paso): As chairman of the Program Committee, I want to thank Dr. Brown for presenting this subject which opens such a large field for discussion.

DR. L. O. DUTTON (El Paso): I wish to express appreciation to Dr. Brown for covering the literature and trying to bring out the important points as the foundation for this symposium. Those interested in this subject know how great a job it is to read the mass of literature. Dr. Brown has accomplished a great work for the Association, showing familarity with the subject and his contribution should make the remaining papers on the program more worth while.

DR. H. A. MILLER (Clovis, N. M.): Dr. Brown has given us a very practical paper, covering the general subject of allergy. We should think of the cell as a unit of structure in the body. The processes going on in the differentiated cell constitute the organism. Dr. Brown did not touch on the mineral balance of the cell, nor mention vitamins. Most of the chronic diseases can be treated by dietary methods, maintaining the proper balance of proteins, carbohydrates, fats, minerals and vitamins.

DR. R. D. KENNEDY (Globe, Ariz.): I have enjoyed this paper very much, and realize that this is a big subject and one which has not yet been mastered. I know that I have probably taken out allergic appendices. If a patient has all the symptoms of acute appendicitis and we cut in the abdomen, find the appendix edematous and the whole cecal region injected, how can we distinguish between an allergic condition and inflammatory one?

DR. J. M. MEASON (Chandler, Ariz.): I have been rubbing shoulders with Dr. Brown for some time, belong to the same societies with him and appreciate the work he has been hammering into us for years. I want to tell about one patient who was distressed with asthma. When questioned about her diet, she said she had been on milk for years. There were no pollens flying at the time. We wired her physician (Hastings) for a list of her food tests. Among them was Klim. She could not take citrus fruit. I wired her physician if he had tested her against raw milk; he replied "Klim is milk." Without consulting him further, we treated the patient who was on morphine and adrenalin for relief. We asked her to leave off the milk for 24 hours, and she consented to sleep without narcotics. After 48 hours we put her back on pasteurized milk and found she could take it, but she could not take raw milk.

DR. FRANK STOVALL (Sherman, N. M.): I appreciated the paper very much; it seems to be perfectly rational. I have one question; in angioneurotic edema, in which you get throat and tongue involvement, we cannot wait for the starvation method; what is the most active remedy for the immediate danger?

DR. O. H. BROWN (Closing): I agree with practically everything that has been said, except personal references. With regard to patients with angioneurotic edema, if patient is going to strangle, put in a tube; if not so severe, do not give anything for 24 hours except water. If the appendix is found swollen and looks as if it were going to rupture, it should come out whether it is allergic or inflammatory, because an allergic appendix can rupture.

One important thing in diagnosis, likely to be overlooked, is the history. The mere fact that allergy is in the family may not mean that this patient is allergic, and on the other hand it may be important. I found only one reference to angioneurotic edema in the literature reviewed, but do think it is important. Am glad that Dr. Werley mention tobacco; I have quit smoking since reading Sulzberger's paper. Many cases of spasm of the coronary vessels are aggravated by tobacco, but food is far more important. However, eliminating foods will not cure sclerosis of the coronary vessels. Organic disease may be aggravated by allergy and vice versa.

In treatment, one point which I have previously mentioned is that after a person has been taken off the food or foods causing the trouble, in a short time he can go back and eat that food. I was greatly astonished to find the amount of argument that gastric ulcer is allergic. I have had a leaning in that direction, and often put ulcer patients on acid and they do well. I am glad that vitamins was mentioned. There is much in the literature about the importance of supplying them. The allergic individual may lack something which he needs. I have had some results which lead me to believe there is some truth in that statement.

PUBLIC HEALTH NOTES

J. ROSLYN EARP, DR. P. H.
Director, New Mexico State Bureau of Public Health.

OUR UNTREATED SYPHILIS

Dr. Walter Clarke's most entertaining story of his adventures in Mora County has already appeared in the Annals of Internal Medicine.[1] His report on the survey of syphilitic infection in New Mexico will have been discussed by the New Mexico Medical Society before these notes appear in print. But the findings are of such importance to the future health of this state, and indeed of the Southwest, that some of them may well be recorded here.

The main problem, writes Doctor Clarke, is clearly indicated. It lies in the fact that less than one case in twenty is under medical care.

This rather startling conclusion is not based on guess work but on two pieces of investigation. The first was a census of all cases under medical care on December 1, 1933. This census was made by the U. S. Public Health Service in cooperation with the New Mexico Bureau of Public Health and the American Social Hygiene Association. The method followed a standard procedure under which census has now been made of about one-quarter of the population of the whole country. Reports were received from 350 physicians or institutions in the state; only 46 failed to reply. On the given day 1,831 cases of venereal disease (1,011 syphilis, 820 gonorrhea) were under medical supervision. Of these, 87.2 per cent were in the hands of physicians and 12.8 per cent in the hands of hospitals or other institutions. Taking the figures for syphilis alone it will be seen that 0.24 per cent of the population are under treatment for this disease.

The prevalence of syphilis is determined by three separate surveys, although the survey personnel was not entirely changed for any of them. In Mora County, Doctor Clarke found that out of 1,646 blood specimenss 5.8 per cent gave a positive Wassermann reaction. Among 1,452 individuals examined during the health survey, the average incidence was 8.0 per cent positive Wassermanns. In a third survey, made possible through the FERA, there were 87 positives among 2,214 specimens, giving an incidence of 3.9 per cent.

The high incidence of the health survey is due to the inclusion of two cities in the area surveyed. The low incidence of the FERA survey is due to the fact that it was made in such rural areas as Harding and Catron counties where the population is very widely scattered. Taken all together these three surveys give, it is believed, a very fair sample of the state and the average incidence of syphilis works out at 5.6 per cent.

Doctor Clarke made a detailed study of the records in the state bacteriological laboratory for 1932. Of 1,994 specimens sent in for Wassermann test by all private practitioners and health officers, 1,078, or more than 50 per cent, were sent by only 25 active, interested practitioners. Ten out of the thirty-one county health officers had not sent in a single specimen. Of 252 specimens sent in by 21 health officers, more than half were sent in by six men. No specimens whatever were received from any practitioner in four counties. These four counties had between them a total white population of 22,500. On the basis of our findings above there should be well over 1,000 cases of syphilis in these four counties.

Doctor Clarke concludes that "neither the physician nor the county health officers of the state are using the diagnostic facilities of the state laboratory as fully as they should."[1] Doctor Clarke further recommends that specimens of chancre fluids for darkfield examinations should be taken and sent to the state laboratory. The state laboratory obtained outfits for taking these specimens and it was announced nearly two years ago that this service was available.* I am informed, however, that the physicians of the state have not availed themselves of this offer.

What can we do to remedy the unsatisfactory state of things disclosed by Doctor

Clarke's report? The U. S. Public Health Service has offered to lend us a full-time officer of the Service to improve our machinery for the diagnosis and treatment of venereal diseases in New Mexico and to take charge of popular health education with a view to convincing the public of the importance of consulting a physician in regard to venereal infection. They ask only that the state shall insure the necessary travel expenses and clerical aid and the availability of the necessary drugs. The offer will be presented to the next session of New Mexico's legislature. It is most earnestly to be hoped that it will be sympathetically received.

It has been clearly understood between the Service and the State Bureau of Public Health that any system for improving the diagnosis and treatment of venereal diseases in the state will be worked out in collaboration with the State Medical Society.

1. Clarke, W., Sangre Impura in Mora. Ann. of Int. Med. 7:1436 (May) 1934.

* See Southwestern Medicine, October, 1932.

CASE REPORT

Man Who Swallows Foreign Bodies.

ELLIOTT C. PRENTISS, M. D.,
and W. W. WAITE, M. D.
El Paso, Texas.

(Reported to the El Paso County Medical Society on April 9, 1934.)

The case is that of a young white man who was serving out a fine in the El Paso City jail. Beginning Nov. 2, 1932, he received considerable publicity in the newspapers on account of eating numerous electric light bulbs, razor blades, cartridges, bolts, and so forth. As this seemed to us to be very interesting from a medical standpoint, Dr. Waite called up the jail to see if the man would mind coming to Dr. Waite's office for a medical and x-ray examination. This he did on November 5. This record was taken hurriedly, and is not complete.

Mr. R. E. S., white, single, age 30, painter. Was born and raised in a New York slum. As a child did not have worms. Never ate dirt or clay. Pneumonia 15 years ago. Flu during the war. Never had lead poisoning. Has been eating nails, tacks, and so forth, since 7 years of age. Does not know why he ever began to eat foreign bodies; now does it more or less because he likes to do it. The publicity attached to it is probably the determining factor. He has had previous examinations by physicians in New Orleans (5 years ago), and in a hospital in Leesville, La. Has been in vaudeville occasionally; would have three performances a day; at each of which would eat a light bulb, half of a beer bottle well broken up, nails and a box of tacks. Never has had dysphagia, nausea, vomiting, diarrhea or constipation; never pain in the abdomen or rectum, or cramps. Bowels always regular. Occasionally saw glass in the stools, but never pieces of iron. Yesterday and day before ate several cartridges, and had tacks with his breakfast this morning.

Examination: Tongue clean; holds it out straight, no trembling. No cuts or scars in mouth or on tongue. Abdomen: Stomach apparently normal in size and position. Liver and spleen not enlarged. No tenderness; muscles are large and strong, but not "stiff." Could feel contracted cecum and descendng colon, but they were not tender; could not feel any foreign bodies in them. Has had right inguinal hernia since childhood; now of considerable size; can be pushed back; gives no pain or trouble. Lower jaw and lip prominent; suggest adenoids when young. Pulse regular; seems nor-

Roentgenogram showing foreign bodies in colon.

mal; heart sounds negative. Eyes: Right lid droops; left more open, but not entirely normal. Says can see more light with left eye than with right one. Sees well. Needs glasses for reading. Pupils normal size; sluggish to light. Knee-jerks increased. Romberg negative. Coordination good. Memory good. Thinks clearly. Never any trouble in making decisions. Association of ideas good. Talks consecutively. He readily understood questions asked, and was willing, quick and clear in his answers. Gave details wanted; there was no evasion, and he apparently told the truth.

X-ray examination by Dr. Waite: Picture taken first lying on the abdomen. Then fluoroscoped in a standing position. Few small indefinite articles in the stomach. There were no tacks in the stomach. Ptosis of colon, which contains two cartridges, tacks, glass, and a few other small articles. Barium meal given; fluoroscoped standing. Stomach vertical, mostly on the left side, and narrow. Peristalsis very poor or none; pylorus closed, but pressure forced a little barium into duodenum. No evidence of peptic ulcer present. (See figure.)

Some interesting features of this case are:

1. The frequent swallowing of foreign bodies without any evidence of insanity or imbecility.

2. No apparent injury to the mouth, tongue, esophagus, or rectum.

3. No symptoms of injury to the stomach, small intestine, or colon.

4. The rapid evacuation from the stomach of dangerous foreign bodies, in spite of poor peristalsis and a mild or moderate pylorospasm.

MINUTES of the Forty-Third Annual Meeting ARIZONA STATE MEDICAL ASSOCIATION

June 7, 8 and 9, 1934. PRESCOTT, ARIZONA

GENERAL SESSIONS

First General Session was held in St. Michael Hotel, Thursday forenoon, June 7, being called to order at 9:30 a. m. by N. C. Bledsoe, President. Rev. Charles Franklin Parker, of the First Congregational Church of Prescott, gave the invocation, as follows:

" O God, the great healer of all man's infirmities, we come into Thy presence at the opening of this council of Thy servants of healing, acknowledging our gifts from Thee. We pray Thee our Father, that upon these who serve humanity and are dedicated to noble pursuits of ministering unto Thy children as physicians and surgeons, there may rest Thy special care, guidance and insight, and that they may ever be conscious of the great wisdom and spirit that is of Thee. This day we thank Thee for the great service rendered by the medical profession to the suffering and sick, and for the ever increasing consideration and progress in the matter of overcoming the deadly foes of mankind in their courageous and endless research, and for the unselfish giving of themselves and their ability to the prevention of sickness, and the obliterating of conditions thru sanitation and preventive education that have in the past produced many of the ravaging forces of mankind. And we thank Thee, too, for the improvements in the science of medicine, and for the perfecting of techniques and skills. And we are further grateful, our Father, for the revelation thru them that has brought into the possession of man knowledge whereby those suffering from mental ailments and nervous disorders may receive proper care guided by scientific diagnosis. We give thanks for their inconspicuous and sacrificial service to all mankind and for such a manifestation of the spirit of the Master.

We recommend them unto Thee, and ask for them Thy continued care and revelation. Grant that truly the spirit of the great healer of men's ills may rest upon them, now and forever, in the name of Jesus of Nazareth. Amen."

The Address of Welcome was given by Hon. Charles F. Robb, Mayor of Prescott, in a few, well chosen words of cordial greeting.

Dr. C. R. K. Swetman, President of the Yavapai County Medical Society, on behalf of the medical profession of the county, gave a short welcoming talk.

Dr. Win Wylie, of Phoenix, gave the response to those welcoming words. He spoke of the meeting held in Prescott more than thirty years ago, when he was president of the Association. He spent some three months of time in preparing a paper, and read it to an audience of five members. Today 18 members are present, which indicates a growth of 13 members for the opening session. That is wonderful! (Note:—Some of those present are still trying to figure out whether the doctor was sarcastic or not.)

President Bledsoe announced that the resignation of President-Elect Holmes had been received shortly after the meeting at which he was elected. This resignation was forced upon Dr. Holmes because of illness. In accordance with the constitution, the vice-president, Dr. Meade Clyne, succeeded to the office of president-elect and will become the president at this meeting.

Since the last annual meeting, the Basic Science law was subjected to referendum vote and was confirmed by popular vote. It is now a law of the state and should be of great benefit. This law will doubtless be attacked in some manner at every election, and the medical profession must be eternally on their guard to prevent undesirable legislation designed to nullify this act.

The office of president was then turned over to Dr. Meade Clyne. He expressed his appreciation and stated that the Committee on Local Arrangements had requested that the president's address be given at the banquet, and the papers of the Scientific Program were then taken up.

The first paper read was by Dr. Dudley Smith, of San Francisco, Calif., his subject being "The Menace of Rectal Suppositories—Care of Rectal Cases." After reading the paper, he talked about the treatment of common ailments of the anus and rectum, including fissure, hemorrhoids, prolapse, cryptitis. Discussion was opened by Dr. Willard Smith of Phoenix.

The next paper was by Dr. Roy Hewitt of Tucson, on "Proctoscopy as an Aid to Diagnosis." Discussion was opened by Dr. V. G. Presson of Tucson, continued by Dr. Dudley Smith of San Francisco, Dr. Willard Smith of Phoenix, and closed by Dr. Hewitt.

The next paper was by Drs. W. O. Sweek and Guy C. French, of Phoenix, on "Intestinal Obstruction." Discussion, in the absence of Dr. A. C. Carlson of Jerome, was opened by Dr. R. O. Schofield, of Boulder City, Nev., continued by Dr. Win Wylie of Phoenix, Dr. J. M. Greer of Phoenix,, with closing discussion by Dr. Sweek.

Announcement was made that Dr. W. C. Carhart, of Fort Whipple, had an interesting exhibit of pathological specimens at the hospital of the Fort, open for inspection by any one interested.

The afternoon session of June 7th, was called to order at 2:10 p. m. by President Meade Clyne. The first paper was by Dr. E. Clarence Moore of Los Angeles, on "Pre-operative Preparation and Post-Operative Care." This was read by Dr. E. H. Wiley, his associate. Discussion was opened by Dr. David M. Davis of Phoenix, continued by Dr. C. A. Thomas of Tucson, with Dr. Wiley closing.

The next paper was by Dr. R. F. Palmer of Phoenx, on "Rating Permanent Partial Disability by Functional Measurements." Dr. C. E. Yount of Prescott, who was to open the discussion, was ill, and Dr. R. D. Kennedy of Globe gave the first discussion, being followed by Dr. Samuel D. Ingham of Los Angeles, Dr. R. O. Schofield of Boulder City, Nev., Dr. D. F. Harbridge of Phoenix, Dr. J. M. Greer of Phoenix, with Dr. R. F. Palmer closing.

The next paper was by Dr. W. Warner Watkins of Phoenix, on "Roentgen Therapy of Inflammation." Discussion was opened by Dr. C. A. Thomas of Tucson, continued by Dr. Meade Clyne of Tucson, with closing discussion by Dr. Watkins.

Dr. Frank C. Goodwin, the Fraternal Delegate from the El Paso County Medical Society, telegraphed his regrets at being forced to be absent because of illness, and his paper was read by title: "A Bone Brace to Prevent Toe Drop in Paralytics."

The Thursday Evening Session, preceding the smoker, was given over to a consideration of the relations between the Association and the Arizona Industrial Commission. Dr. R. F. Palmer, Medical Referee of the Commission, presided. He first introduced Hon. B. B. Moeur, Governor of Arizona, after briefly outlining some of the problems which have come out of a study of the medical work of the Commission in Arizona.

Governor Moeur stated that he was a common every-day doctor, trying to run the state government. In connection with the Industrial Commission's work, he does not think that the fixed fee is always equable. When a doctor treats an injury which gives him more than the usual trouble, he should be properly compensated. He would prefer to pay the doctor more money than cut short his services. And the same with the injured man. Cannot class all cases alike. The Commission may have been a little too severe on the medical profession, and think we should come to a better understanding between the profession and the Industrial Commission. We must have cooperation to make this state what it should be. Many people are ready to chisel the compensation on the slightest pretext. He thinks the Industrial Commission and Dr. Palmer have a sympathetic feeling for the medical profession. At the same time they must guard the funds which are coming in and must be very careful. Some doctors have been underpaid for work done, and for extraordinary cases, extra compensation should be paid. He thinks that the Advisory Board, such as was recommended in the business meeting (see) will bring about a better understanding between the medical profession and the Commission.

Dr. Palmer said that he was glad to hear Governor Moeur say what he did about the fee schedule. He, himself, does not thnik that the schedule is right. The purpose of the Advisory Council proposed in the resolutions which are to be acted upon later, is to supply an active committee actively interested in taking care of all questions of medical relations. He introduced Mr. Keener, a member of the Industrial Commission, who read a paper.

Dr. Palmer remarked that Mr. Keener reflected the attitude of the Commission with regard to. the medical profession. He then introduced Mr. Leo Guynn, head of the Claims Department of the Industrial Commission, who read an interesting paper. Dr. Palmer stated that time could not be taken for discussion of the suggestions but thought that a half day should be given over to consideration of industrial medicine, at the next annual meeting.

The General Scientific Session of Friday morning, June 8th, was called to order at 9:40 a. m. by President Clyne.

The first paper was by Dr. Howard K. Gray, of the Department of Surgery of the Mayo Clinic, on "Surgery of the Biliary Tract." In the absence of Dr. George Goodrich, the discussion was opened by Dr. Robert S. Flinn of Phoenix, continued by Dr. J. M. Greer of Phoenix and closed by Dr. Gray.

The next paper was by Dr. Samuel D. Ingham of Los Angeles, on "Neurologic Conditions Commonly Associated with Diabetes, Pellagra and Pernicious Anemia." Discussion was opened by Dr. R. F. Palmer of Phoenix, continued by Dr. Max Pinner of Tucson, Dr. Orville H. Brown of Phoenix, with Dr. Ingham closing.

The next paper was by Dr. E. A. Gatterdam of Phoenix, on "Nasal Allergy." Discussion was opened by Dr. D. R. Gaskins of Phoenix, continued by Dr.

Orville H. Brown of Phoenix, with Dr. Gatterdam closing.

At this time, at the close of the forenoon program, a brief Memorial Service for the deceased members of the Association, who had passed to their reward during the past year, was held. This was in charge of Dr. John W. Flinn, of Prescott, based on the report of the Committee on Necrology. Dr. Flinn spoke eloquently and feelingly regarding the accomplishments and sterling worth of these members:

HARRY T. SOUTHWORTH, of Prescott. He practiced in Prescott for thirty years, and was a past president of the Association. He stood high in the regard of all who knew him, was a careful and skilfull surgeon, a useful citizen and staunch friend. His sudden passing left a void in the medical ranks of Yavapai County, still too keenly felt for words to bridge over.

P. A. MELICK of Williams: He, too, was a pioneer practitioner of some thirty or thirty-five years in Williams. He was highly regarded in his community. He was a charter member of the Yavapai County Medical Society.

LEWIS WALSH, Clarkdale: Also a member of the Yavapai County Society, cut off at an untimely age, in the middle of his usefulness.

M. C. COMER, Tucson: A comparatively recent addition to the medical ranks of the state, in the specialty of eye and ear. A practitioner who was highly regarded in Pima County.

J. W. BAZELLE, of Winslow: Another practitioner of long standing in Arizona, who had been located for nearly twenty-five years in that community.

R. E. YELLOTT, Benson: He had practiced in the southern part of the state, being engaged in mining practice there and in northern Mexico. A highly regarded member of the Cochise County Society.

CHAS. L. HATHAWAY, Winslow: A practitioner of some thirty-five years in Navajo County, a highly respected and useful citizen of that community.

JOHN WIX THOMAS of Phoenix: One of the very old timers in the medical profession of the state. Dr. Thomas was a man of sterling character and very deep convictions. He served his community and state well, and was honored by them. For many years he was secretary of the Medical Examing Board.

These names will be among those classed as heroes when the last great trumpet sounds. One and all, they fought the good fight, they have finished the course, they have kept the faith; henceforth there is laid up for them crowns of righteousness. May their souls rest in peace!

Memorial Prayer: "O God, the God of the spirit and the body of man, in whose embrace all creatures live, we pray Thee for those whom we love, whose dwelling and need Thou knowest(Lord, grant them light and rest and peace in paradise. If in any way we may minister to them, or they to us, be pleased in Thy love to reveal the way.

We give Thee hearty thanks for the good example of all Thy servants who have finished their courses, who have labored for Thee, and with Thee, in the noble ministry of healing, who have given their lives in the service of their fellowmen. Keep them, O Lord, in Thy holy love; remember them in Thy divine mercy, and grant that increasing in knowledge and love of Thee, they may go from strength to strength in the life of perfect service, and that living in the light of Thy eternal and perfect love, they may learn to love Thee, and us with a love that is immortal. Infinite and Eternal, through Jesus Christ our Lord, who livest and reignest with the Father and the Holy Ghost, one God, world without end."

The afternoon session of Friday, June 8th, was moved to the Elks' Theater, so that moving pictures could be shown. The first paper was by Dr. Max Pinner of Tucson, on "Physiology of Pulmonary Collapse." Discussion was opened by Dr. John W. Flinn of Prescott, continued by Dr. Orville H. Brown of Phoenix, and closed by Dr. Pinner.

The next paper was by Dr. C. A. Thomas of Tucson, who read a paper on "Collapse Therapy in Tuberculosis," and showed an original moving picture in natural colors of thoracoplasty. The discussion was opened by Dr. E. A. Gatterdam of Phoenix.

The next presentation was by Dr. Arthur Smith of Los Angeles, on "Plastic and Reconstructive Surgery of the Head." This paper was accompanied by three or four reels of moving pictures showing several cases of reconstructive surgery technic. The discussion was opened by Dr. Paul Bennett of Tucson, President of the Arizona Dental Association.

The final paper of Friday afternoon was by Dr. Fred G. Holmes and Dr. Howell Randolph, on "Pneumothorax Treatment of Lobar Pneumonia—Report on Eighteen Cases." This was read by Dr. Randolph. Discussion was opened by Dr. Robt. Flinn, continued by Dr. O. H. Brown and closed by Dr. Randolph.

At the banquet on Friday evening, the President's Address was delivered by Dr. Clyne. Also the address of the President of the Auxiliary was given by Mrs. C. R. Swackhamer of Superior.

The Fraternal Delegate from Texas, Dr. G. T. Vinyard of Amarillo, presented a paper.

On Saturday morning, the general session was called to order by President Clyne, at 9:20. The first paper was by Dr. Louis Baldwin of Phoenix, on "Treatment of Secondary Anemia." In the absence of Dr. Baldwin the paper was read by Dr. H. T. Franklin. Discussion was engaged in by Dr. W. W. Watkins of Phoenix, Dr. H. A. Reese of Yuma, Dr. Meade Clyne of Tucson, Dr. R. D. Kennedy of Globe.

The next paper was by Dr. Robt. S. Flinn, of Phoenix, on "Treatment of Nephritis." Discussion was opened by Dr. D. F. Harbridge of Phoenix, Dr. R. D. Kennedy of Globe, with Dr. Flinn closing.

The next paper was by Dr. R. K. Smith of Tucson, on "Post-partum Hemorrhage." Discussion was opened by Dr. Kennedy of Sacaton, Dr. Fuller of Sells, Dr. Meade Clyne, with Dr. Smith closing.

The next paper was by Dr. George Colvard, Fraternal Delegate from New Mexico, Deming, N. M.,

on the subject of "Rural Obstetrics—Delivery in the Home." Dr. H. A. Reese of Yuma opened the discussion, being followed by Dr. R. K. Smith, of Tucson, Dr. R. A. Wilson of Tucson, Dr. G. T. Vinyard of Amarillo, with Dr. Colvard closing.

Final paper of the program was by Dr. M. I. Leff of Glendale, on "Common Sense about Medical Ethics." Discussion was opened by Dr. Orville H. Brown, being followed by Dr. R. F. Palmer, Dr. W. W. Watkins, with Dr. Leff closing.

Scientific Session was adjourned, and open session of House of Delegates convened.

Minutes of Council Meeting.

Council meeting of June 6th. Called to order at 8:30 p. m. Present: President N. C. Bledsoe, President-Elect Meade Clyne, Secretary D. F. Harbridge, E. C. Houle, Councilor of Southern District.

Minutes of last meeting were read and approved. The Report of the Treasurer and the Medical Defense Committee's report were presented and approved and accepted. Letter from President-Elect, Fred G. Holmes, tendering his resignation, was presented by President Bledsoe, with statement concerning the accession of Dr. Meade Clyne to this office. Councilor Houle reported on the activities in Santa Cruz County, stating that they are now one hundred per cent united. Their good work was shown in the Basic Science referendum election.

Budget was presented and adopted for approval of the House of Delegates.

Meetings of the House of Delegates.

The Executive Session of the House of Delegates was held on Friday morning, at 8:30 a. m. Roll Call showed the following present: President Meade Clyne; Secretary D. F. Harbridge; Councilor E. C. Houle. Delegates: Drs. Greer, Davis and Watkins for Maricopa County; Dr. C. A. Thomas for Pima County; Dr. R. D. Kennedy of Gila County; Dr. Gustetter of Santa Cruz County; Dr. Stump of Navajo County.

Reading of the minutes of the 1933 meeting was dispensed with, on motion and vote, as they had been published in the official journal. Report of the Council was then presented (see above). The proposed budget was as follows:

Secretary	$120.00
Treasurer	50.00
Insurance	30.00
Medical Defense	100.00
Southwestern Medicine, per member	2.00
Welfare Committee	200.00
Reporter	100.00

Treasurer's report was read by the secretary, with comments. The Medical Defense Committee's Report was read, with comments. Report of the Council was approved by vote of the House of Delegates.

Report on Southwestern Medicine was given verbally by Dr. Watkins.

Report of the Cancer Committee, given by Dr. E. P. Palmer, Chairman, was read by the secretary, and approved. (see below.)

Report of the National Legislative Committeeman (Dr. R. J. Stroud) was presented. (V. v.)

After some discussion, motion was made and approved, that reports of standing committees, in the future, be published in the official journal at least a month preceding the annual meeting.

Miscellaneous Business: Dr. Gustetter thought that we should have a session devoted to a discussion of economic questions and other important matters outside of the scientific phases of medicine. In the counties, every effort should be made to get every doctor into the society. Every county should have a hundred per cent of their doctors in the county society. Motion was made that hereafter one-half a day of the Association's program be given to discussion of medical economics, and that resolutions and reports on this subject be published the month before the annual meeting. Motion carried unanimously.

Motion was made that the resolution introduced by Dr. R. F. Palmer (see Committee Report), be referred to the Resolutions Committee for report at the next meeting of the House of Delegates. Dr. Swackhamer thought the report should go over for a year. Motion was put and carried.

Dr. E. C. Houle of Santa Cruz County, presented a resolution of protest against the state of ignorance in which we are allowed to remain by the American Medical Association, regarding certain economic questions, particularly with regard to the situation in the balance of the world in the socialization of medicine. The resolution urged the Association to represent things in such a fashion to the American Medical Association, that a larger measure of information and precaution will be forthcoming.

Resolution was discussed by Dr. Max Pinner and Dr. C. R. Swackhamer. Dr. Swackhamer stated that we lack a continuity of contact with the American Medical Association because we do not have a delegate who would go to their meetings year after year. He made motion that we select a delegate who would be interested and willing to attend, and pay his expenses to the meetings. Motion was put and carried.

Open meeting of the House of Delegates was held on June 8th, at luncheon, at Hassayampa Hotel. Dr. Clyne stated that the Treasurer's Report contained certain recommendations which had not yet been disposed of. Dr. Yount presented these.

(1) Recommendation that the dues be continued at the present figure of $12.50 a year, and prorated as in the past ($6.00 for medical defense and $6.50 to general fund.) Motion was made and adopted that this recommendation be approved.

(2) Motion was made that the second recommendation of the treasurer regarding the purchase of $3000 of U. S. bonds be approved. Motion carried.

Motion was made, after explanation by the treasurer, that he be authorized to cash in any bonds that the Government might call, taking advantage of the best offer. Motion was carried.

(3) Recommendation that the Welfare Committee's appropriation be budgeted. Dr. Hamer stated

(Continued on page 281.)

CITY-COUNTY HOSPITAL (El Paso) STAFF MEETING March, 1934

DISCUSSION OF EFFICIENCY REPORT

Dr. Gambrell suggested that, in a charitable institution, the percentage of autopsies should be higher; this month shows less than 50 per cent. Since the consent of the relatives is necessary for an autopsy, unless such consent is forthcoming, it is impossible to do them. It was suggested that possibly arrangement could be made to get permission for an autopsy in the event of death, at the time of admission for an operation.

The question was raised as to the value of an autopsy in the cases that did not come to autopsy, as to whether the cases were routine diagnoses, from which nothing was to be learned. Dr. Gambrell said that he felt there were very few autopsies that "'we can't learn something from." He cited the case of a death following a small stab wound, apparently insufficient to cause death, in the right scapular region. The patient lived about 45 minutes after injury. He had been badly beaten up in a fight, and had an autopsy not been held, it would have been thought that he had suffered an unrecognized head injury, which was responsible for death. However, on autopsy, it was found that the entire left lung was tuberculous, that practically no normal lung tissue was left, and the right lung had been completely collapsed with the small stab wound; the wound was very, very small, not deep, but was sufficient to collapse the good lung, which, in the presence of a solidified left lung, was sufficient to cause death.

Dr. Berger stated that most of the deaths on which autopsy is not performed occur during the night hours, when none of the family are present; the body is taken to the undertaking parlors and it is almost impossible to reach the family and get permission for autopsy later. He advised that autopsy permi's were secured in practically all deaths occurring during the daytime, or when members of the family were present. Dr. Waite stated that autopsy was unnecessary in many cases, and the families did not want autopsies unless it was necessary to determine the cause of death for the report; that, in cases of children, with pneumonia, and so forth, autopsy was unnecessary. Doctor Barrett stated that it was much more difficult to get autopsies on children, because the families were "more sentimental" about it. The discussion closed with Doctor Varner's suggestion that the interns secure as many autopsy permits as possible.

During the course of the above discussion, Doctor Strong asked why the hospital deaths were no longer discussed as a routine procedure. Dr. Gambrell said that, in his opinion, if an attempt were made to discuss thirty or more deaths at one meeting, there would be no one left to discuss the last three cases! Doctor Varner advised that this had been brought up previously, and it had been decided, because of the time element, to stress any cases of particular interest, but to discontinue discussion of all deaths.

TRACHEOTOMIES IN THE CITY-COUNTY HOSPITAL

Presented by Dr. Bloyce Britton.

The high mortality rate in our tracheotomy cases here at the hospital has been mentioned to me frequently. I think there are very few who understand the difficulties that we encounter here in the proper care of a tracheotomized patient. In the first place, we have no room properly equipped and ventilated, with controlled humidity proper for tracheotomy cases. Second, we get only emergency cases, that are already nearly dead. I would say 98 per cent of them are in extremis. I find that the statistics in the City-County Hospital for the years 1929 to 1932 are as follows:

Year	Tracheotomies	Deaths	Percentage
1929	4	2	50
1930	3	3	100
1931	3	2	66⅔
1932	None	—	
1933	7	2	71

Now, that 100 per cent in 1930 is a pretty high mortality. I have found only four autopsy reports. Doctor Waite will talk to you about the findings at autopsy. We will take up the cause of death in tracheotomy primarily as an operative procedure.

For a planned tracheotomy, there is no such thing as mortality, or should be no such thing as mortality. As a purely surgical procedure, the mortality in tracheotomy should be nil. In the streptococcic sore throat pseudo-diphtheritic throats, and true diphtheria, the mortality is high. In my observation of the deaths here, they have not died from any of the complications of tracheotomy. Pneumonia following tracheotomy is more theoretical than real. Jackson says in his clinic not over one-half of one per cent has ever developed pneumonia from aspiration. In our cases here, the autopsy reports speak simply of the contour of the body, say that the lungs are well ventilated, aerated, and most all the cases show a membrane extending clear down the tracheal tree, showing a very marked laryngeal diphtheria.

As stated before, the cases admitted to the City-County Hospital for tracheotomy are all emergencies. The majority of the tracheotomies are done by the interns. I have tried to tell the interns each year that they will have to do some of these, that there won't be available a man who can show them and tell them a few of the points in the doing of a tracheotomy: that is, to eliminate danger by avoidance of anything but a midline incision; to avoid aspiration by posture (advising the Trendelenburg position, or the use of a pillow under the shoulders, with the head drawn back); and the use of the proper-sized cannula. I must say that the interns have done emergency tracheotomies just as well as you or I would do them.

Now, as to the nursing care of those patients: Tracheotomized patients should have a special nurse, day and night. They should have a machine to as-

pirate mucus, feathers to clean out the tubes, new tubes to reinsert, cannulas of the proper size, and all of those things which go to make up a true tracheometric ward. We have none of those things. The majority of the time, we have two nurses on duty; we have a tracheotomy patient in isolation, and two nurses in the hospital at night. I know that some of those patients have choked up, but most of them have died of myocardial failure from diphtheria. I have had the disease. I know how it works. I had a myocardial something that took me off my feet, and I went out. I think that's what these cases die from, whether acute dilatation or not; they die apparently from heart failure, due to sepsis of diphtheria.

In view of this high mortality which we have here, you will say, how about the administration of antitoxin? We try to see these patients the minute they come in; if there is a suspicion of diphtheria, 20 thousand units are given that night, repeated in six to forty hours. Even in bad streptococcic throats, the diphtheria antitoxin is a very good prophylactic measure. Then the patients are usually given supportive treatment—which includes care as to ventilation of the room. The air out there is bad—the worst possible. Our high mortality is not due particularly to lack of care. That is bad, but if they died from want of attention, they would die from asphyxiation of bronchopneumonia, which they don't do, ordinarily.

There are two bad results usually due to blunders in emergency tracheotomies. First, emphysema. The intern called me out one time to see a case on which he had done a tracheotomy. He had closed the wound up to make it look pretty, and had a nice emphysema; the patient was puffed out like a balloon. The second is mediastinal bleeding. We haven't had any at all.

So, in view of all these facts, we are open to suggestions on this service, for any constructive or destructive criticism, for the benefit of the service in these cases. The patients come out here in a crisis. We might be criticised for saying, "tell the intern to go ahead and do it," but most of those cases are cyanotic and gasping in the last stages of asphyxiation, and you can't call the attending man down in time to do an emergency tracheotomy, for it is just what the word implies. I don't think our mortality is due to delay in doing the tracheotomy after the patient enters the hospital.

Sometimes, in spite of all our experience, we are fooled. A patient came into this hospital about three months ago. She had all the symptoms of gangrene of the throat. There was a woody phlegmon under her neck. Her tongue was out between her teeth. The whole throat was gangrenous. I saw the patient the afternoon after admission, just before her death. The intern had done a tracheotomy on that patient—an excellent tracheotomy on a woman with a cellulitis fully three inches thick. I thought it was purely a streptococcic infection. I thought she had none of the characteristics of a diphtheritic infection. We put in a larger tube, aspirated some mucus out of the lung with the catheter. When she came to autopsy, there was a diphtheritic membrane down past the primary bronchi. I don't think diphtheria antitoxin or anything else would have done her any good. The diphtheritic membrane was coexistent with the cellulitis and gangrene. She was cyanotic when I saw her; the pulse was rapid; she was dying, and with definite myocardial failure.

They are given antitoxin, and they die.

Now, as to the construction of a room for tracheotomized patients. That would involve an expenditure only for a humidifier to keep the air in the proper condition, and a heater to keep the air properly warmed, to keep the room warm, moist, and well ventilated, and would require the services of a special nurse when we have tracheotomy patients in the hospital. Some of this heart failure may be due to the fact that these patients have trouble and difficulty in breathing, due to blocking and obstruction of the tracheal cannula in the ward. I cannot say. But we do know that it is a strain on the heart to try to breathe with an obstructed cannula. We can't help that with the limited facilities.

This matter has been brought up for discussion, to show that our mortality is very high on these tracheotomized cases. It is another thing that I think could be improved in one respect, possibly; but on the other hand, our efforts are rather futile, due to the lateness of the disease when we get it.

DISCUSSION

DR. GWINN: First, when we get a case with diphtheria of the larynx, the question is whether to do a tracheotomy or an intubation of the larynx. Personally, I would rather do an intubation. There are fewer complications, such as emphysema from closure, or septic pneumonia from aspiration, secondary infection of the wound, or even, sometimes, erysipelas. Of course, where the obstruction is below the larynx or higher than the level of the vocal cords, then tracheotomy is all that can be done. In the literature, there are opinions both pro and con, as to which is the better of the two methods; and, actually, I think it might come down to the skill of he operator, since there is so much question as to which is the better method. Why we don't do intubations out here, I don't know. It is possibly because of the fear of not getting the intubation tube in correctly. Those that I have seen, I thought died from myocardial failure. One of them, on whom Dr. Waite did an autopsy, I know died of septic pneumonia. I think Dr. Britton's suggestions that we should have better facilities for doing this work, are good. It is quite a handicap, especially to the patients, when it comes to the matter of nursing, because the matter of doing a tracheotomy is fairly simple, and with proper nursing attention, the mortality is decreased greatly.

DR. BARRETT: Dr. Britton is quite right about the high mortality being due to the fact that we get these cases out here so very late. They are all emergency cases, and the deaths, I should like to

emphasize, are from diphtherial toxemia. There isn't any doubt about that. As to the choice of operative procedure. I don't think there is any doubt that tracheoomy gives the emergency measure where there isn't any intubation set here, and it requires considerable skill, and those patients haven't time to wait. That is why intubation is not the procedure of choice in this institutino. Space is rather at a premium here, and we just have to do the best we can by offering as much humidity through the tubes as possible, and get by the best way we can. I think any life we save is just that much gain, that much to the good, instead of having an even higher mortality rate than we actually have.

DR. WAITE: I want to say, just from what I have seen in post-mortem work, that, whether those kids are tracheotomized or whether they are let alone, they have the same condition when I open them up. There is a bunch of membrane from the larynx to the bifurcation or further than that; and how you are going to do any tracheotomy that will do any good is beyond me—it is a plumb waste of time. Every one of them has had a pneumonia, that I have posted. Whether it is a diphtheritic pneumonia, I don't know. The middle lobe of the right side is most frequently involved. It is beefy red and solid, but not as solid as a lobar pneumonia. It is not liver-like. The bases of both lobes are always involved, but usually not as much as the middle lobe on the right side. Why this is so, I don't know.

It is just a waste of time, talking about putting tubes in cases like these. The only thing to do is to jump on the health department for letting there be any diphtheria. That's the first place to begin, and the health department is trying to do it. We've all got to help. We've got to talk immunization to all of those families, and when they get immunized properly, they won't have diphtheria. If children with sore throats are given prompt treatment, there will be few cases requiring tracheotomy. Don't wait for any hemming or hawing. Give them antitoxin, right now. The earlier, the better.

This tracheotomy business is just playing around with something that has been neglected, and should have been attended to several days ago. You can't do much about it. You can't clean out a trachea that is full of membranes from one end to another, through a tracheotomy tube. You can't cure one of these pneumonias with a tracheotomy tube or anything else. So our first work is prevention. The next is early treatment.

DR. McCAMANT: I appreciate what Doctor Waite said, and I make no excuses for the Health Department. We are immunizing just as rapidly as we can, and I want to say that the medical fraternity, too, are helping us, as proved by their cooperation during November and December.

The children who died during 1931, up to the middle of 1933, were not under my service. I had only those over twelve years old. I saw two of those cases, however. I called Dr. Barrett and asked about one. Some of those cases shouldn't have died, because if you intubate a child and get enough air in its lungs to live four or five days, and it has enough antitoxin, it is not going to die. The last child I saw that was tracheotomized recovered. I saw it five or six days after the tube was placed. The nurse told me it was developing pneumonia. (I should have said "'tracheotomized" before, because I don't think we have ever done an intubation here.)

We cleaned out the tube, and you could see the membranes. We gave it 60,000 units of antitoxin. The child got well.

I think Dr. Waite will tell you some of those children needed more antitoxin. I do not approve of doses of 20 thousand units; I don't think that is enough for any child with laryngeal diphtheria: 20 to 30 thousand intravenous, is more like it. If your tube will keep the child alive 24 to 36 hours, and it gets plenty of antitoxin, the majority will get well. I believe, like Dr. Gwinn, that intubation should be done more often than it is done. It is easier to do a tracheotomy, but after practice it is just as easy, if not easier, to intubate. I had two in 1931 and one in 1933 that we intubated. They are all alive. One had been sick six days. It was blue. We had an awful time getting it still long enough to put a tube in its throat. I believe intubation is safer, and I believe it should be done more often. I believe the hospital should have one of the sets, and the interns should be taught to use it.

We will furnish antitoxin to any physician who wants it, whether for his private patients or for his charity patients. We don't want to go north of the tracks for the immunization of people who can pay. We are now giving the Allen precipitated toxoid in one dose as immunization, ½ cc. to the dose. When you see your patient once, you are through with him. A certain number of those cases will not come back for the second, and mighty few for the third dose, when you give it in three doses. If you can accomplish immunization in one dose, why not do it? We have not had a case of diphtheria in any child who has been immunized with a single dose of Allen precipitated toxoid. They are using it exclusively in New York.

DR. GALLAGHER: There are probably not a dozen intubation sets in El Paso. Probably there are not a dozen men capable of intubaton wthout dong more harm than good. But there isn't a physician who can't do a tracheotomy, and for that reason, I think that probably, for the average physician, tracheotomy is the best procedure. Ordinarily, you don't have time to use the intubation set, if you have it. You're likely to have to do it right there. You haven't time to go out and get your intubation set. You only get experience by experience. You can do as many intubations on a dead person as you wish—it isn't like doing it with live patients. I have seen a lot of damage done with intubation, and not being expert enough to do it—when a simple tracheotomy might have saved the patient.

DR. CUMMINS: I cannot help but sympathize with the problem Dr. Britton si up against. I know

all of us have a great deal the same problem in our treatment of our acute appendicitis cases, and I am glad Dr. Waite got down to the bottom. I take it that the vast majority of these were emergency cases. But in analyzing anything like this from the hospital standpoint, it would be nice to know how long these patients were in the hospital, and what was done. Maybe they were all brought in purely for tracheotomy. If so, then what was wrong on the outside? The same thing that is wrong with the cases of appendicitis. The majority have been sick three or four weeks before they get in. A large percentage of them haven't seen a doctor until they are told that they must go to the hospial. The Mexican population is not educated to enter the hospitals. I know the hosptial records don't seem to bear that out, but it is true. They will all stand pain in the abdomen for a long, long time before they even call a doctor. So I don't think we can blame the medical profession entirely. There are probably a lot of them that are not diagnosed, or are only seen once, and can't be diagnosed. But so far as this tracheotomy business is concerned, I want to agree, thoroughly, with Dr. Gallagher.

I had been out in practice for several years before I had occasion even to think of intubation. When I did find a case that needed it, I called two or three throat men before I found one who even knew where to get a set. If I hadn't stopped him, when he did start doing it, he would have killed the child. That throat specialist hadn't been out of the hospital very long. He had been doing them. He had recently been in the hospital, and was in practice. You say the interns should be taught to do intubations. How are you going to educate them with that many cases—possibly three or four in a year? The who'e four interns won't see perhaps more than two cases during the entire time they are here. How are they going to get practice? Most anybody can do a tracheotomy. If I had diphtheria, that's what I would want done, rather than have any of these specialists who hadn't been doing it for perhaps ten or fifteen years, trying to do an intubation. It doesn't make any difference whether you are doing intubation or tracheotomy—you cannot do it off in a room without moisture and proper temperature. I have an intubation set. I haven't used it since I have been in El Paso. If I was lucky and inserted the tube—well, I was lucky. If I wasn't successful, I would go ahead and do a tracheotomy. But they've got to have attention following a tracheotomy.

DR. BRITTON: I forgot to mention the matter of intubation—but when you start arguing intubation vs. tracheotomy, it's like arguing whether the hen was here first or whether the egg was here first. In regard to an intubation set for the hospital, I have a gold one, which my father gave me; I think he gave $350.00 for it; and I will give it to the hospital, if any of these men want to use it. I'll bring it down here, if they want to use the thing. But just use your common reasoning about intubating a child with diphtheria. The purpose is to aerate the larynx. The largest intubation tube would give about as much air as you get through a soda tube. With a diameter of less than 3 mm., how much mucus, and so forth, is going to come out? The practice of intubation has been almost discontinued in the larger clinics. The art of inserting an intubation tube requires a great deal of skill. I have seen children killed with intubation sets, trying to intubate them, and breaking through the ventricle larynx. The danger of trauma is very great. I never cared for it. I knew I could never do it. I couldn't reason out in my own mind where it would be effective. It is just a matter of effectiveness, but I think if you will use your common sense, you will wonder why; anybody can do a tracheotomy; it is not a major operative procedure. This emphysema of the neck, infection of the neck, and so forth, is a bunch of hooey. I know from personal experience. I know there is nothing to pneumonia following tracheotomy. There is no mortality to the doing of a tracheotomy, per se. If you will look overthe writings of the men that are doing that work all the time, you will find that out. It's the simplest thing I know of.

I think Dr. McCamant's suggestion, that we are not giving enough antitoxin, is a very potent one. However, there are other men on the staff who say give it in smaller doses at more frequent intervals. We'll try that, though, giving 40 to 60 thousand units immediately, repeat it, and give some intravenously. That is a matter to be argued, both ways.

CASE REPORTS

By Dr. W. W. Waite

Case No. 549. M. J., a 43-year-old Mexican housewife, was brought to the Hospital on March ,8 1934. She was in a semi-comatose condition, and unable to give any history. I called Dr. Molinar, who sent her in, but he didn't seem to remember the case.

Physical examination revealed a markedly cachectic, emaciated and dehydrated patient. Her tongue was coated with a thick brownish fur. Neck was essent'ally negative. The chest showed dullness over both lungs, with a few moist rales in the bases. The heart showed regular rhythm, and had a typical embryocardia quality. The rate was 92. The abdomen was negative. The skin was extremely dry and rough, and resembled parchment, with a three plus pitting edema of both ankles. The impression was that the case was one of chronic nephritis, with a terminal uremia.

Laboratory findings: hemoglobin, 90; white blood count, 4,700 with 86 per cent polys; urine showed a 4 plus albumin, otherwise negative; N.P.N., 58.8; Kahn, 4 plus.

The pa'ient did not respond to treatment, and died a day and a half after her admission.

The autopsy revealed the following: The body is that of a markedly emaciated Mexican woman. No external marks of violence. On section, there is nothing of importance in the abdomen except en'arged sp'een. On opening the chest, the right lung is found markedly adherent with fibrous adhesions, and considerably collapsed, and on section contains many cavities and more-or-less collapsed dense fibroid lung tissue. There are some small tuberculous areas infiltrating the remainder. On the left side, the lung is removed; it is infiltrated with fibroid tissue. The upper lobe contains several cavities; the lower lobe is partly acutely congested and partly infiltrated with a progressive tuberculous

process, with numerous small consolidated areas, some showing cavity formation. Heart apparently normal. Kidneys considerably enlarged and swollen. Liver pale yellow and markedly fatty.

Diagnosis: Tuberculosis. Chronic nephritis (possibly amyloid).

Microscopic examination: Aorta shows degeneration in the media; otherwise no change. Liver shows considerable atrophy of the cells, and in places extensive round-cell infiltration. Spleen shows nothing of especial importance. Kidney shows considerable amyloid in the glomeruli, and in places some extending outside. The secreting tubules are markedly degenerated, and in places there is considerable round-cell infiltration.

Diagnosis: 1. Amyloid kidney and extensive nephritis. 2. Hepatitis. 3. Arteriosclerosis.

C. C. The patient, a 33-year-old Mexican housewife, was admitted to the hospital on Feb. 10, 1934, complaining of generalized swelling of her body.

She stated that she had been perfectly well up until six weeks ago, when she first noticed a swelling of her ankles. The edema soon became more pronounced, and she consulted a physician, who told her that she had kidney disease, and prescribed some pills, hot baths, and daily doses of castor oil. She obtained only slight relief from the above treatment, and ten days before she entered the hospital she noticed that her hands and face were swollen, in addition to the rest of her body. There had never been any pain, headache, nausea, vomiting, or diarrhea. She complained of slight dyspnea, but no orthopnea.

Physical examination revealed a Mexican woman of about the stated age, who did not appear to be acutely ill. A generalized anasarca was evident. The head and neck were essentially negative. The chest revealed dullness and absent breath sounds in the bases. The heart showed regular rhythm, fair quality, rate 120. No murmurs. The abdomen contained some fluid, but there was no tenderness, and no masses were palpable. An old scar was present on the vulva. The skin showed a marked pitting edema, extending from the feet to the forehead. The impression was that the case was an acute nephritis, with generalized anasarca.

Laboratory Findings: Hemoglobin, 80; white blood count, 16,000 with 78 per cent polys; urine was alkaline in reaction, had a 2 plus albumin, 2 plus pus cells, and a 4 plus coarsely granular casts and pus casts. There were no red blood cells in the urine. The Kahn was 4 plus.

The patient died two days after her admission to the hospital, and we obtained an autopsy, which showed the following:

Autopsy report: The body is that of a Mexican woman; no external marks of violence. Extremities markedly edematous. Abdomen distended. On section, poor nutrition; tissue edematous, large amount of water-clear fluid in the abdomen. On opening the chest, both pleural cavities are found filled with water-clear fluid, as is also the pericardium, to a certain extent. Lungs markedly collapsed. Heart small, shows no gross lesions. Spleen is large and flabby, and liver is somewhat swollen. Kidneys are somewhat enlarged, and capsule strips easily. Surfaces are somewhat mottled and cut surfaces grayish-yellow in color; cortex full.

Diagnosis: Acute nephritis, atelectasis, general anasarca and general edema.

Microscopic examination: Section of kidney shows glomeruli practically all filled with an amyloid degeneration. In the pelvis, and in places through the kidney, there are areas of marked round-cell accumulation. In places, there is amyloid between the convoluted tubules. Epithelium and secreting tubules are somewhat thinned out and granular. The change is primarily in the glomeruli.

DISCUSSION

DR. RALPH HOMAN: Amyloid disease, or amyloidosis, is found usually in prolonged suppurative cases, such as tuberculosis or chronic bone disease, in syphilis, in anemias and in cachexias. Generally speaking, it is not hard to diagnose on physical examination. We find the patient is usually pale, not necessarily anemic when we do a hemoglobin, but of a pale color. The liver in nearly all cases is palpable well below the costal margin, and has a rather distinctive feel. It is very fibrous and hard, and the border is usually sharp and not rounded as we find in some liver enlargements. The spleen in some cases is palpable in tuberculosis, where we see it most often. We have in most cases a diarrhea due to an amyloid condition of the mucus membrane of the colon. There is usually an attendant myocarditis with a low blood pressure, due, not necessarily to an amyloid condition of the heart, but probably to a myocarditis or fatty infiltration in the heart. Dr. Waite will tell you what the kidneys look like. The urinary findings in most cases show albuminuria is present, though not necessarily so. In practically every case, casts are present, varying from hyaline to finely granular and coarsely granular in some cases.

In tuberculous cases, we see a great deal of it, and when one of my cases has been sick a long time and has stopped getting better, I kind of hate to feel of the abdomen to see if the liver is enlarged. If it is, I know there is no hope for them. It is in practically all cases a terminal condition.

These two cases are not typical. Both of them were syphilitic. In neither case did the microscopical findings show an amyloid liver; while in one case the liver was enlarged, the history shows that in neither case was the liver palpable. I would have thought that in two old cases of illness, as these were, and with the advanced condition of the kidney, that we would find rather marked enlargement of the kidney, and find it palpable. But it was not, in either case. In practically every case with a prolonged illness, when we find a swelling around the ankles, going into a general anasarca, and the condition is associated with tuberculosis or syphilis or some prolonged illness, we can safely diagnose the case as amyloid degeneration.

DR. WAITE: Of course, from one point of view, these are more or less curiosities; but from another point of view, I think it would help us a great deal to understand some of the physiology of the kidney. We have had only a few cases of amyloid disease in all we have posted. We have had some remarkably large livers, some probably twice normal size, which were amyloid. We posted a case around a year ago that had a large abdominal tumor which proved to be—just an amyloid liver. But neither one of these cases reported tonight had an enlarged liver.

In the first case, syphilis was the only cause we found. We just saved the kidneys for a nice acute nephritis case—acute nephritis is not so very common. But in the second case, we studied the liver and spleen both. No amyloid changes in either one.

It might be interesting to compare. Here's a report on 100 cases of renal amyloid disease found in 9613 autopsies. (Note—Dr. Waite read these statistics from the American Journal of Medical Science for March, 1934.) In these cases, tuberculosis of the lungs was found in 70 per cent; 8 per cent showed tuberculosis in the bones, making a total of 78 per cent occurring in tuberculosis, or about four out of five. The highest incidence of renal amyloid diseases occurred in cases which had had pulmonary

tuberculosis for one year or more—64 cases. In 12 cases, renal amyloidosis was found to be associated with renal inefficiency; in other words, in 26 per cent of the 46 cases in which blood chemistry studies were made.

The various causes in these 100 cases are summarized, after tuberculosis, as: malignant tumors, 9 cases; empyema, 5 cases; chronic arthritis, 2 cases; chronic osteomyelitis, bronchiectasis and lung abscess, each 1 case; in three cases, the cause could not be determined. Hypertension is relatively infrequent in amyloid disease of the kidney. Of 35 cases with blood pressure readings, the systolic pressure was above 150 mm. in only four, or 12 per cent. In the cases of renal amyloidosis with renal insufficiency, the kidneys were either normal in size or somewhat enlarged. Renal amyloidosis may be associated with independent arteriolar nephrosclerosis. Albuminuria is a fairly constant finding in renal amyloidosis.

I think this sums up the findings in a hundred cases much better than we can in two, but, having these cases, we had a chance to study them.

That first case, we only recognized what we had too late; had it been about two weeks earlier, with a chance to do some real physiological studies on it, it might have been much more interesting. In the first case, the glomeruli were almost completely destroyed. According to one theory, the glomeruli are the parts that secrete the water. If the water-secreting parts are closed up, it would seem that the kidneys would not longer secrete. Is that the reason we get edema? In the article I read, it says that edema is due to a change in osmotic pressure due to secreting so much albumin through the kidneys. The albumin changes the osmotic pressure so that the water accumulates in the kidneys; but if it is the glomeruli that secrete, it has to dam water. I don't know which is right. Maybe they're both right, Then the tubules absorb part of the water, and put it out in the water.

The second case cannot have had very much edema; it did not have any fluid in the body cavities, and, of course, it was not as acute a case as the first one. It was slower and more gradual. The patient was markedly emaciaetd; perhaps she had taken very little fluid, and there may have been other reasons to account for not having so much edema. But it is an interesting question, offering much opportunity for physiological study, and if we understood it well, it might teach us more about how to treat all kinds of kidney conditions.

DR. WERLEY: The question of edema is a live one with me, nearly every day of my life, because I get hold of these old cases with ascites or heart failure and edema. There are so many factors in edema. The first one is the amount of sodium chloride in the body. If there is too much sodium chloride, the water follows it. Maybe the heart is to blame. I can't get water out without a certain amount of efficiency on the part of the heart. Then the acidity of the blood has something to do with it. If the blood is acid, it is more likely to have a dieresis. If alkaline, water tends to accumulate in the body more. Salyrgan, ammonium nitrate, or ammonium chloride given, you get a dieresis, much better than if you don't give them. There have been several books written on edema; the thyroid gland has something to do with it. Old cases of myxedema, water logged, with albumin, looking like an old nephritis, clear up when you give them thyroid. There are many factors to be studied.

DR. RALPH HOMAN: One thing more about the urinary findings. That might help to clear up this matter of edema. In nearly every case of amyloid disease, the early symptom, even after the anasarca is very definite, is almost always an enormous increase in the amount of the output of urine. The specific gravity sometimes goes down as low as 1005 to 1008, but the amount is increased.

CITY-COUNTY HOSPITAL (El Paso) STAFF MEETING April 18, 1934.

DISCUSSION OF CASES

Presented by Dr. Berger.

Case No. 1. F. M., a 45-year-old Mexican laborer, was first admitted to the hospital on May 24, 1933, complaining of pain in his head and neck. He stated that he had been well up until eight months previous, when he developed a pain in the back of his neck and in the region of his occiput. The pain was dull and aching in character and was of a remitting type. He stated that, during any motion of the body that involved movement of the neck, the pain became very sharp and almost unbearable. More recently the pain became almost constant, and he was forced to lie flat on his back and steady his head with his hands. One year ago, while moving a piano, he wrenched his neck, and it remained painful for several days, but he seemed to recover, until five months later, when the symptoms that he now has, began.

Patient is married and his wife has had six miscarriages, closely following each other and all coming early in pregnancy.

Examination of the head was negative except for the prominence of the eyes. Examination of the neck showed exquisite tenderness over the third cervical vertebra to the right, and there was a marked prominence in that location. Attempt at moving the neck caused exquisite pain. The rest of the physical examination was essentially negative.

A spinal tap was done, and the fluid was clear under normal pressure. Laboratory examination, including a Wassermann, was negative. The impression was that the case was either one of (1) caries of the cervical vertebrae, (2) possible dislocation, or (3) lues. Laboratory tests showed his blood count to be normal, and the urinalysis was normal. The urine was tested for Bence-Jones proteins and none were found.

During his stay in the hospital, the patient was seen by several of the staff men, who concurred in the diagnosis of possible caries of the cervical spine or a possible dislocation. He was discharged from the hospital on June 19, 1933, as unimproved. During his stay in the hospital, his neck and chest were x-rayed and showed the following:

5-2-6-33—Lateral stereo of neck shows destruction of all the bodies of the cerebral vertebrae except the first and second. There is a little bit of one body remaining which seems to be the fourth, and down about the region of the sixth there is considerable angulation. The cause of this change is not apparent. There is no new bone formation, and tuberculosis cannot be ruled out.

6-3-33—x-ray of the chest shows the chest symmetrical, with a tremendous slant of the ribs and narrowing of the intercostal spaces. The upper mediastinum is greatly widened, extending clear up

into the neck and down into the heart shadow. The rest of the lung substance on both sides is hazy, and there is considerable infiltration around the right apex.

He was readmitted to the hospital on March 12, 1934, and physical examination at that time revealed a hard lump about the size of a small orange, which appeared to be attached to the left mandible. The cervical vertebrae appeared to be entirely destroyed, and there was exquisite tenderness on the slightest motion of the neck. The rest of the physical examination was essentially negative. The impression at this time was that the case was a malignancy of the cervical vertebrae, with metastasis to the jaw. Laboratory examination of the blood and urine was negative. Another x-ray was made of the neck, and showed the following:

3-12-34—Film of the neck, for check-up, shows the bones in the neck and the base of the skull soft, with calcium absorbed, casting hardly any shadow.

Patient was sustained on morphine and luminal until March 22, when his temperature shot up from 99° to 105°. Examination of the chest at this time revealed a consolidation of the right lower lobe. He died on the 25th of March, and we obtained an autopsy, which showed the following:

The body is that of a Mexican man, poorly nourished, head down on the shoulders as if the neck was collapsed.

There is some swelling on the left side of the jaw, which seemed to involve the bone. Examination of the abdomen shows nothing of importance.

Examination of the chest showed lungs clear. Dependent portion of the lung on the right side was consolidated, surface covered with exudate. On section, it was dark red, quite firm.

The neck was opened from behind, and the whole mass of vertebra and base of skull was removed in one piece. The bone was markedly softened, could be cut with a knife in many places. The base of the skull was considerably thickened. It had the appearance of rather firm cartilage with a small amount of calcification. Just how far this condition extended down the spine was not determined, but the whole base of the skull was involved, and after the bases were removed, the petrous portion of the sphenoid bone could be whittled up without any great trouble. The brain itself did not show any involvement.

Grossly, this condition was a new growth, destroying the whole cervical vertebrae and the base of the skull. Apparently osteosarcoma.

Dr. Waite showed lantern slides.

DR. WAITE: This was absolutely restricted to the bones of the neck and the skull, with slight involvement of the jaw. Usually a new growth goes anywhere over the body; this one staid right where there was bone growing. It is a spindle-cell tumor, with possibly some larger cells in it. How can a tumor do this? I have been thinking about it a long time, and all I can think of to fit the case is what we studied about osteoblasts and osteoplasts, one developing bone and the other destroying bone. This bone did not increase in size, the structures remained about normal in thickness. The only way I can see is that we had a tumor made up of osteoplastic cells. If this is a tumor which is growing and producing a physiological effect, it is different from most tumors. We have a tumor here that has destroyed bone, that has not grown much in size, just continuously and progressively replacing the bone. It is a very unusual condition and must be a new growth of the osteoplasts which destroy bone; so to me this is a very unusual tumor. I can't find anything like it in the textbooks, and I think it is rather rare. I have never before seen one like it.

DR. SWOPE: This is rather an interesting case. I was called on to see this case by the Relief Association, and I objected to going; it was in a little outside village. They said it was a tumor of the brain. I went down and found this man as you saw him. His neck was perfectly limber if you would move it, but he had a great deal of pain on movement. I have never been quite satisfied about the growth on the mandible there. We have no report on that mass seemingly growing off his jaw. Whether it is a part of this growth, or of the same histological characteristics, we have no report. Maybe we were so enthusiastic about this condition in the cervical spine that we did not pay enough attention to it.

The question came up as to what the diagnosis was when he got to the hospital. Someone recognized it and looked up his old record. The question came up as to what the condition was. We recognized at once that we had a destruction of bone—whether a luetic infection attacking the bone, or tuberculous in character, which is so common, or whether it was a malignant growth, was the question to be settled. A Wassermann of his spinal fluid under those circumstances should have certainly given us positive reaction if it was luetic in character, but the spinal was negative. The entire absence of any tubercular infection in glands, lymph tissue, or any other part of his body, almost eliminates the tuberculous suggestion. Then we were left with the possibility of some malignant development. This makes me think of the Irishman who was sick. A consultation was called, and one of his friends hid behind the sofa to hear what the doctors all said. When they had gone, Pat went and told the others that they had all agreed on one thing, and that was that when Dr. Autopsy got there he would find out just what the trouble was. Dr. Autopsy was very enthusiastic over this case, and we are certainly obligated to him for explaining this condition.

This last week I found another old Mexican down in South El Paso with apparently a very similar condition. I brought him down and had him x-rayed. His bones were all in place, and a large sarcoma was growing apparently from his jaw. This is a very interesting case.

To understand growths of this kind, it is necessary to review the nomenclature of the subject to some extent. Osteomata are hard tumors developing on bone and composed of new bone growth of osteoblastic origin. Osteomalacia means softening of the bone, due to disintegration of the bone cells and replacement with some less dense material. Osteochondromata, are composed principally of bone and cartilage cells. Osteochondrofibromata contain

the three elements of bone, cartilage, and fibrous tissue.

Sarcomata rarely possess capsules, and therefore produce rapid infiltration in adjacent tissues. This in part accounts for their rapid progress.

Bone sarcomas may attack the periosteum, medullary, and bone tissue itself.

Sarcoma of the periosteum may produce enormous growths, with infiltration into the outer surface of the bone. When the medullary is involved the growth is not so rapid or so large, and the infiltration of the bone is from within outwards.

In some instances, the bone tissue seems to be the starting point, and death of the bone cells and osteoblasts with replacement with spindle cells, takes place. In this condition the process seems to be confined more particularly to the osseous tissue, with little disposition to spread to the adnexae. This would seem to be the case in this instance, since neither the brain and spinal cord nor their membranes in any way macroscopically were involved. There were some symptoms of compression of the intracranial nerves previous to death, probably resulting from the thickening of the occipital and petrous portion of the temporal bone, which was quite apparent at autopsy.

In the history of these growths there is almost always a trauma, often antedating the condition. This man was supposed to have hurt his neck in moving a piano. This is not entirely a new thing to me. Long years of experience and good memory sometimes help us along. In 1891 G. G., a boy of 1, drove some pigs to town. He was riding leg under the mule. He got up off the ground and of 16, drove some pigs to town. He was riding leg under the mule. He got up off the ground and onto the mule and brought the pigs on to town. He complained of great pain in his leg. Within a short time he was brought to me with a little hard swelling in the midportion of the femur. I treated him. Two or three weeks later he reported back and the growth was very much enlarged. I advised removal. It was very hard and was evidently developing rapidly. In a comparatively short time it became as large as my head. I did a hip-oint amputatjion and secured a specimen. The patient lived about six hours after the amputation. On the canal of the bone we found just such a condition as we had in this case. The bone was destroyed entirely, and the specimen sent to the pathologist was reported as a spindle-cell sarcoma. There was an injury to the shaft apparently at the time the mule fell on him, and on this injury was developed the change in character of the bone, with the spindle-cell sarcoma apparently developing in this bone.

This condition is no respecter of persons, age, sex, or conditions. In 1896 a man about 48 years old developed a sarcoma of the lower jaw. His history was that he had had a tooth extracted at that point, and the jaw never got well. It continued to destroy the bone until, when I saw him first, the bone was practically eaten in two. There was a great mass there, and we removed the bone from the symphysis to the ramus. The man recovered thoroughly, but he had only one side of his jaw left and was badly disfigured.

A good many years ago, in the Mimbres Valley, an archeological investigation was made and we dug up a former inhabitant of that section that had a clubbed end of his radius, and it was honeycombed. He had been buried about a thousand years. The bone was in good condition except that there was the club, showing that he had had a growth in the bone. It was about four or five times as large as the bone, but the bone was hard and it looked as though the growth had started in the marrow and ballooned the bone out.

I saw one little child about three years old that had a rapidly growing tumor on the distal end of the ulna, which was removed, and so far as I know the child recovered.

I am satisfied that, in the case of the sixteen-year-old boy who fell with the mule, if I had been allowed to amputate this leg earlier, we might have saved his life, because it seems to hold to the bone itself and not to invade the adnexae. I think that in all probability, when biopsy shows this diagnosis, amputation will save the life of the individual.

DR. MILLER (in absence of Dr. Goodwin who was to have discussed case): Dr. Goodwin's idea was that there were three things that would have to be considered in a diagnosis of this case. Dr. Swope has discussed these, and Dr. Waite has, too, in a measure. This history of course would make you think of a syphilitic process, but in these conditions of the bone, while there is destruction, there is also usually a formative process. Tuberculosis does not usually destroy the bone as rapidly and as completely as this. It seemed that this was more in the nature of a cancer. I think there is a possibility that some relief could have been obtained earlier by x-ray.

Case No. 2. G. L., a Mexican child of 3 years, was brought to the hospital on February 3, 1934, with the following history:

"Two weeks ago the child became ill with fever and malaise. Three days later it broke out with measles. It was apparently recovering from the measles, when it began to have abdominal distention. At the onset of this symptom it was given a dose of epsom salts, which gave temporary relief. When this symptum reappeared, it was given repeated enemas, with fair results at first, and then with no results."

On failure to respond to this treatment the child was brought to the hospital. There have been no other symptoms associated with this condition. The past history is negative, except for measles, mentioned before.

Physical examination showed a poorly nourished Mexican child about stated age, 3 years. He appeared to be apathetic, but did not cry or complain of any distress. Temperature was 100°, pulse 140, respirations 28. The abdomen was greatly distended and tympanitic. There was no rigidity of the abdominal muscles, and no tenderness. No masses

were palpated. The skin of the trunk showed a fading eruption of measles. The rest of the physical examination, including rectal, was negative. The blood count showed 20,000 white cells, with 80 per cent polys. 2 monocytes, and 18 lymphocytes. The urine was normal.

A diagnosis of peritonitis was made and the child was given the following treatment: The first day, repeated soda enemas and turpentine stupes. These enemas were returned with some fecal material. No gas was expelled. Normal saline, 250 cc. by hypodermoclysis twice a day, was given. These measures were continued for the next seven days. No relief from the distention was obtained, and after the first day the enemas were all returned clear. During this time the child seemed to be holding its own in spite of the fact that it received no nourishment; but, on the other hand, it did not show any improvement, and on the seventh day a peritoneal puncture was done; 1 cc. of what was thought to be pus was aspirated. Culture of this fluid showed a heavy growth of small gram-negative bacilli, thought to be coli. At this time, milk and molasses enema through a colon tube was given repeatedly, with practically no benefit. With the colon tube in place, the child was taken to the x-ray room and a flat plate was made of the abdomen. This failed to show anything of importance, as reported by Dr. Waite.

The next day Dr. Stevenson saw the baby, and recommended large and frequent doses of mineral oil. The child was given an ounce and a half of mineral oil every four hours, for three doses. This failed to show up in subsequent enemas. At this time surgical pituitrin was also tried, with no benefit. Upon recommendation of one of the staff, 25 mg. of novocaine was given intraspinally, followed by peristaltine and surgical pituitrin, hypodermically. Following this, a small liquid stool was passed, but no flatus was expelled. During all this time the child ran a temperature ranging from normal to 107°, and there was no vomiting. Since the child failed to respond to any of the treatment mentioned before, it was decided the following day to operate. It was taken to the operating room and under local anaesthesia a small high right rectus incision was made. The intestine was found to be distended with gas, and was of a normal pinkish color. A small opening was made in the small intestine and a rigid rubber tube of small caliber was inserted into the gut and held in place by purse-string sutures. Following operation, the baby began to lose ground, vomited several times, his pulse became very weak and rapid, and at 6:10 the following morning, he died. An autopsy was obtained, and the report is as follows:

"Body is that of a poorly nourished Mexican child with a markedly distended abdomen. There is a recent surgical wound in the abdomen, with a drainage tube.

"Some excess of fluid in the abdominal cavity, and peritonitis around where the drainage tube is inserted. The stomach, duodenum and jejunum are markedly distended, but at the place where the ileum begins, it is normal and there are no signs of obstruction. The colon is large, but not distended, and at the sigmoid there are numerous small ulcerations. The left kidney is dilated and markedly injected, and the cavity is large. The right kidney is also somewhat dilated, but not so much so as the left, and it is not so red. There is some reddening of the base of the bladder.

"On opening the chest, the lungs, especially the lower lobes, are considerably consolidated and deeply injected, leaking blood on section.

"The cause of the intestinal condition is not apparent. The colon is definitely hypertrophied, and there must have been a pyelitis on the left side. with a terminal pneumonia."

Dr. Barrett, who was on the program to discuss this case had been called out.

WHAT EVERY WOMAN DOESN'T KNOW—HOW TO GIVE COD LIVER OIL

Some authorities recommend that cod liver oil be given in the morning and at bed time so as to assure an appetite for the oil, while others prefer to give it after meals in order not to retard gastric secretions. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. Mead's Newfoundland Cod Liver Oil, of minimum acidity and prepared from fresh healthy livers, is well tolerated by infants and children and is palatable without flavoring.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silver-plated spoon (particularly if the plating is worn), a glass has an advantage.

Mead's 10 D Cod Liver Oil is made from Mead's Newfoundland Cod Liver Oil... In cases of fat intolerance the former has an advantage since it can be given in 1-3 to 1-2 the usual cod liver oil dosage.

SUMMER DIARRHEA IN BABIES

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"HIGHER OBSTETRIC STANDARDS FOR ARIZONA."

At the time of the Prescott meeting of the Arizona State Medical Association, resolutions under the above heading were in the process of preparation by Dr. C. E. Yount, but his illness prevented these from being brought before the Association. In a recent communication, Dr. Yount has set forth the basic factors and the motif for the proposed resolutions, hoping that their publication will accomplish the same purpose.

Some years ago Dr. H. A. Reese of Bisbee-Yuma gave us a very helpful paper dealing with the R. O. P. position in labor. Up to that time our annual programs were usually characterized by a paucity of obstetric subjects. I asked several of our men doing obstetrics if they would, among themselves, be responsible for securing annually for our program at least one good paper on an obstetric subject. One paper annually, read and discussed at our state meeting, would probably not elevate the standards, but it might at least prevent obstetrics from becoming a lost art and the obstetrician from becoming the forgotten man. I am glad to note that we have had one such paper on each annual program since that gentleman's agreement.

But why the resolutions urging higher obstetric standards? During the Public Health meeting which preceded the State Medical meeting, Dr. William P. Shepard, Assistant Secretary, Metropolitan Life Insurance Co., of San Francisco, presented a most illuminating paper entitled "Present Day Opportunities for the Practising Medical Profession in the Field of Public Health." The shaft which I, as an Arizona doctor, could not dodge was his statistical comparison of certain preventable diseases in the registration area of the United States with those of Arizona. Tuberculosis, typhoid fever, the puerperal state and several others were compared. Arizona fared badly when exposed to the statistical searchlight, while the reflections seemed to reach out to city, county and state Health Officers. The next day, when presenting my paper, my reactions to Dr. Shepard's paper led me to digress in these words. "After Dr. Shepard's paper yesterday I am certain that I need not apologize for choosing as my subject 'Prescott's Municipal Water Supply'.' In fact, if you read the writing on the wall you discovered that Arizona has a most unsavory mortality rate. Take, for instance, deaths in the puerperal state, quoting Dr. Shepard; in 1926, the average per 100,000 in the registration area of the United States was 14.3, while in Arizona it was 21.6; in 1931 in the registration area 11.9, still too high according to Paul De Kruif, yet in Arizona it was 17.4. Again, take typhoid fever, one of the "vanishing" diseases in the registration area; Dr. Shepard showed us a continuous and disgraceful mortality in Arizona much above that in the registration area. My deductions led me to express the opinion that unless the medical profession of the State of Arizona, and all others interested in the Public Health, get busy and conduct a campaign of education in disease prevention, and further direct their efforts to destroy the pernicious influence of the cults, Arizona, instead of remaining one of the famed health resort States, will be stigmatized by the sanitarians of this country as a place to keep patients away from.

Returning now to a further consideration of the deaths in the puerperal state; I have not analyzed Dr. Shepard's statistics; I do not know whether our large Indian and Mexican population adds to the mortality rate; I do not know whether the great amount of work done by midwives is responsible for our increased mortality; I do not know whether our sparsely settled areas with great distances from physicians, making consultations difficult and often impossible, add to the mortality rate; I do not know whether it is wholly chargeable to the doctors who practise obstetrics; I do not know whether we are too "progressive" and apply operative obstetrics too frequently to the detriment of our patients; but I

am willing to indulge in a little introspection. Now let me read the indictment from one of our foremost teachers of obstetrics, DeLee; "As was said before, 25,000 women die annually in the United States during child-birth; 6,000 die from infection, 5,000 die from eclampsia, 4,000 from hemorrhage. Of the immense number of wounded we can form no estimate. That a large part of all the misery is preventable is the universal opinion of those who have studied the situation. Why is it not prevented? Because the standards of obstetric instruction and particularly of obstetric practice are very low. Neither the schools, nor the hospitals, nor the profession itself, nor the public, hold the obstetrician and his art in very high esteem. As a result the care of the child-bearing woman is left to the young, the inexperienced, the incompetent, or, indeed, even a non-medical person, the midwife." One of my old chiefs, the late Dr. J. F. Moran of Washington, D. C., (1915) urged a "nation wide propaganda to teach the laity that the long cherished fallacy that pregnancy and labor are physiologic conditions should be abandoned."

If my confreres who practise obstetrics in Arizona will read this "plea," take it seriously and cultivate an obstetric conscience, the resolutions will not be necessary. Our morbidity and death rates in the puerperal state will be lowered. Whether the death rate will approximate that in the registration area I can not say, but our Registrar of Vital Statistics can tell us whether the medical profession of Arizona stands indicted. The analysis of our statistics is with him. Let him answer.

I hope that no one will construe this as a criticism of my confreres. A finer group of medical men can not be found in any state. I speak advisedly. Furthermore, my own obstetric record would not permit me to make an HONEST criticism. I am not an obstetrician. It would simply be a case of living in a glass house. However, years ago, while a hospital interne, I developed an obstetric conscience. It may, unfortunately, have been the type which at times, especially when coupled with ignorance, makes cowards of us all. Still, it has inculcated a desire to accomplish and be associated with the best in obstetrics; to dignify the art of obstetrics as a branch of scientific medicine, requiring at times the highest skill and most mature judgment that can be demanded of any branch of medicine or surgery.

MINUTES
of the
Forty-third Annual Meeting
ARIZONA STATE MEDICAL ASSOCIATION

(Continued from page 270)

that, so far as known at present, no movements are under way which will require great expense. If attacks on the Basic Science Bill are made, this will have to be defended. Dr. Kennedy said that the possible expense should be included in the budget and if the funds were not used, we would still have them. Dr. Harbridge called attention to the item voted, to pay the expense of the delegate to the A. M. A. meeting which would be between $200 and $250. Dr. Kennedy made motion that the appropriation for the Welfare Committee be the same as last year; motion was seconded and carried.

The matter of the expense of delegate to the A. M. A. meeting was discussed, and motion was made by Dr. Harbridge that we put item in the budget of $200.00 for this, and up to this amount can be expended. Motion was carried.

Dr. J. M. Greer presented report of the Committee on Resolutions: The report of Dr. Stroud, National Legislative Committeeman, was read (see).

Motion was made that the program on birth control be approved. Motion carried.

Motion was made that we adopt the regulation regarding radio programs, by the Cook County Medical Society. The resolution was read by Dr. Greer. This motion to adopt was carried.

The resolution regarding the Conference Committee with the Arizona Industrial Commission was presented without recommendation. Dr. O. H. Brown moved that it be adopted; motion seconded. Dr. Leff thought that the members should be appointed in rotation, two for two years, two for four years and two for six years. Dr. Swackhamer thought the present meeting too small to be representative, and the power delegated to this Committee too important for us to act on. According to the resolution the power of the committee would be great and their actions binding on the whole Association. He suggested that the Committee be appointed with power only to advise and counsel with the Commission, and any important matters, such as changes in fee schedule, should be referred to a general meeting of the Association. Dr. Davis thought that there are serious questions as to how this arrangement would work. It might mean that all grievances of the medical profession would be referred to this committee, which might be composed of physicians from any part of the state. No provision is made for any compensation or travel expense. It would be difficult to get them together frequently, and in the meantime grievances would go neglected. It would be difficult to get them to function, if they were forced to go against their friends.

Dr. Palmer stated that the thought of the present commissioners is that such a committee should rotate, the older members holding over, as suggested by Dr. Leff. This idea was not incorporated in the present resolution, because it was thought best to see how the plan would work before making it permanent. It is necessary to have a body of workable size, as it is impossible to deal with the whole profession at once. The idea of the Commission is that the Council would be a cross section of the profession of the state, at least one member from the "self raters" (mining men), and other members from different parts of the state. The Association ought to be able to pick out a committee that their

members will have confidence in. A committee of that sort would not enter into any serious commitments that would compromise the medical profession. If the matter of a fee schedule is to be acted on, the committee would bring recommendations. In order to get it on a workable basis, they must have their own organization and confer with the Commission. With regard to expenses, the present Commission intends to pay the expenses of those men coming from distant points and perhaps a per diem. The experience this committee would gain by the end of their first year would put them in a position to make definite recommendations for the future. So far as the political end goes, if the committee is once established in this relation to the Commission, no change would ever abolish such a committee. Organized like this, the medical profession will have a definite say as to what goes on in the commission. It is contemplated that the members appointed by the president would consist of four, one from the north, one from the central, one from the eastern and one from the southern part; that the president of the Association automatically becomes a member of and chairman of this committee; that the medical referee be an ex-officio member of the committee and act as its secretary. Can assure you that the expenses will be paid to the first organization meeting, at which time the working principles can be formulated and, in conference with the Commission, arrangements made for future meetings. Then, as we go on, perhaps by enlarging the committee's work, and by rotating its membership, we can gain some knowledge from the inside of workmen's compensation.

Dr. Carlson stated that he must disagree with Dr. Palmer in his proposal that he should be ex-officio member of, and secretary of, this committee. At the present time, as medical referee of the Commission, he wields more power than any other man who has held that position. The idea of the committee proposed is to iron out any difficulties that we might have with the Commission—which means with Dr. Palmer. The majority of the industrial work is done by the self contract or self rating men. Perhaps they do not come under the jurisdiction of the Commission as much as the men in private practice, but they also do private work. There should be more representation from the contract men on this committee, and the committee should be absolutely independent of the Commission, if they are to iron out the difficulties we are having.

Dr. Greer stated that this proposal is an overture on the part of the Commission to try to cooperate with the medical profession. Mr. Keener is very sincere about this and is anxious that nothing shall happen to prevent the formation of this committee. The Commission is established by law and they do not have to come to the medical profession unless they want to.

Dr. Watkins recalled the history of a previous conference committee, whose efforts secured a revision of the first Fee Schedule proposed by the Commission. When the committee was asked by the Commission to help them in censoring certain practices, which appeared to the Commission to be wrong, the committee refused to function, and went out of existence. That was a short-sighted policy, because the Commission has since that time gone ahead and developed their policies without further effort to consult with the organized medical profession.

Dr. O. H. Brown expressed his opinion that the committee should be created and be asked to take an active part in developing or revising the medical phases of the Commission's work.

Dr. Palmer, in answer to Dr. Carlson's statements, said that the medical referee has no authority with the Commission and acts only in an advisory capacity. The Commission has recently been taking his advice, but he has no authority. He thinks, like some of the other men, that there should be a medical representative on the Commission, but whether that will occur or not is uncertain. In working with the commissioners, he thinks that they have gradually come to a realization of the importance of the medical treatment and of medical opinion and judgment in estimating disability. The function of the committee will not be to censor the medical work of other doctors. If the committee is asked to pass judgment on a man's disability, he will be taken as he is, without criticism of the doctors who have treated him. With regard to the medical referee and the committee, he should not be looked on as an employee of the Commission in the sense of being employed to carry out their wishes. That is not the situation and the Commission has never suggested such a relation. The idea of making the medical referee an ex-officio member and secretary of this committee was that the clerical work will be considerable and the Commission have provided the medical referee's office with a secretary who can do this work. It is not a matter of getting a wedge into this committee by a representative of the Commission, because he will always represent the medical profession wherever he is. Is not paritcular about it, as he does not expect to be referee much longer.

Dr. Utzinger thought it very essential to have the committee but the resolution gives blanket authority to the committee to do anything. An advisory committee is fine, but an authoritative committee is not. What would prevent the question of censorship of medical or surgical work from coming up? If it should, we could not get five trustworthy men to accept places on the committee. The resolution should be amended by striking out the word "authority."

Dr. Palmer said that this committee is bound to be authoritative as far as the Commission goes.

Amendment to the resolution was offered that the president of the Medical Association appoint four members and that the president of the State Association be the fifth. This motion wa seconded, and on being placed, carried.

Motion was then put on the adoption of the resolution, and this was put to vote and carried.

(The Advisory Committee to the Industrial Commission, appointed by President Clyne, consists of Drs. A. C. Carlson of Jerome, Robt. Ferguson of Bisbee, E. Payne Palmer of Phoenix and R. D. Kennedy of Globe; Dr. Clyne is the fifth member.)

Dr. Orville H. Brown presented the report of the Committee on Economics. He called attention to the April issue of the Bulletin of the American Medical Association, containing an analysis of sickness insurance. He also called attention to the Bulletin of the Michigan State Medical Society, presented in the House of Delegates, in which they recommend mutual health insurance. He read one paragraph from the report of the Santa Cruz Medical Society. Dr. Harbridge moved that the report be received with appreciation for this work and that Dr. Brown and his committee be continued to study this subject further. It is a matter of great importance and so far as observed, there is no satisfactory answer in sight. Motion was seconded and carried.

Dr. Brown stated that the committee would be pleased to have any suggestions and information that would be applicable to any phase of this problem.

The resolution of Dr. Houle was referred to the Committee on Economics for their study and consideration.

Place of meeting for 1935: Dr. Harbridge extended invitation for the meeting to be held in Phoenix. Upon motion this was accepted by unanimous vote.

The election of officers being next in order, the following were nominated and elected without contest, the secretary casting the unanimous vote of the delegates for each officer, in turn:

President-Elect: Dr. C. R. K. Swetnam of Prescott.

Vice-President: Dr. Orville H. Brown of Phoenix.

Secretary: Dr. D. F. Harbridge of Phoenix.

Treasurer: Dr. C. E. Yount of Prescott.

Councilor for Northern District: Dr. N. K. Wilson of Holbrook.

Delegate to the A. M. A. for the years 1935 and 1936: Dr. J. D. Hamer of Phoenix, with Dr. Robt. Flinn of Phoenix as Alternate.

Miscellaneous: Dr. Carlson brought up the matter of the frequency of changes in the superintendency of the State Hospital for the Insane. This position changes with every administration; a new man no sooner gets acquainted and gets the institution running properly and there is a change. We should do something to get this out of politics and have a more permanent situation, which will be better for the patients.

Dr. O. H. Brown said that, speaking from his experience of two years ago, if we went after the candidates for governorship, we could get their pledge to do this.

Dr. Greer said that we could do another thing. We could draft a resolution and present it to the present governor and all succeeding governors, so that incoming officers will know what we think about it. That this office should be a permanent one, the appointment made on merit and the superintendent left in to conduct the institution as a hospital.

Dr. D. M. Davis thought it would be very desirable and a courageous act to take this step. It might be made an essential step in a campaign to secure tenure of office for all technical officers. public health, and so forth. Only in this way can we have efficiency in these offices.

Dr. Leff said that we must all agree with Dr. Davis that it is very desirable to reach this stage. The question is, what can we do? As a medical organization we can do little. As individual medical me we can do a great deal. Not only should we confront the candidates with such a request, that they make no changes without consulting the medical association, but we can also pledge every member of the Association not to accept such an appointment without consulting the Association.

Motion was made, seconded and carried that this matter be referred to the Public Welfare Committee.

Dr. Clyne took this opportunity to thank the Yavapai County Medical Society for the cordial way in which they received and entertained the Association.

Adjournment, sine die.

D. F. HARBRIDGE, Secretary.

(To be concluded next month)

BOOK REVIEWS

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION: Volume 25 (Papers of 1933, published 1934). Edited by Mrs. Maud H. Mellish-Wilson and Richard M. Hewitt, B. A., M. A., M. D. Octavo of 1230 pages with 210 illustrations. Philadelphia and London. W. B. Saunders Company, 1934. Cloth, $11.50 net.

This large volume contains 175 contributions of the Mayos and 217 associates. The list of contributors contains the names of many who are well known as leaders in their special fields of practice and research and they present to you the newest in diagnosis and treatment. These papers cover almost the entire range of medical and surgical practice and are so grouped under general headings that they are easily available for reference. The index of subjects is unusually complete and there is also index of contributors and a bibliographic index; these add greatly to the value as a reference volume.

There is included an "In Memoriam" series commorating the work of Mrs. Maud H. Mellish-Wilson who for 27 years edited the Mayo Clinic publications and was in charge of the Medical Library. The articles give recognition of the "woman pioneer in a new profession, medical editing."

—H.P.M.

NEW AND NONOFFICIAL REMEDIES, 1934, containing descriptions of the articles which stood accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan.

1, 1934. Cloth. Price, Postpaid, $1.50. Pp. 510; lx. Chicago: American Medical Association.

New and Nonofficial Remedies, 1934, has the same pleasing format and helpful mechanism that has characterized it in past years. The enrichhment of the indexing started a few years ago is continued and its value even increased by some desirable simplification of cross references.

Among the preparations newly included in this volume are: Aminophylline, a double salt or mixture of theophylline and ethylenediamine, with the advantage of greater solubility over other theophylline preparations; the new alum precipitated diphtheria toxoid; Neo-Iopax, a new medium for intravenous urography; Benzedrine, an ephedrine substitute; serums contaniing type II pneumococcus antibodies, which the Council has recently recognized as worthy of clinical trial in view of improved preparations and technic; Autolyzed Liver Concentrate and Extralin, two new liver preparations for use in the treatment of pernicious anemia; Metycaine, a new local anesthetic; and Sodium Morrhuate, a salt of the fatty acids of cod liver oil, propcsed for use as a sclerosing agent.

Octozone Not Acceptable for N.N.R.—The Council on Pharmacy and Chemistry reports that the Octozone Corporation of America presented a labile gaseous preparation called "Octozone" and the apparatus ("Electroniseur") for preparing this gas from oxygen by the action of an electrical discharge. The product is proposed for the treatment of a large variety of diseases, in particular various forms of arthritis, by local application, by baths in closed bags, by subcutaneous or intramuscular injection, by rectal administration or by mouth dissolved in water. As the evidence seems to be fairly conclusive that "Octozone" is a mixture of O_2 O_3, the Council decided that no proprietary name for the gas could be recognized, since ozone is not a new discovery, either from a chemical or from a therapeutic standpoint. The Council found the evidence of therapeutic usefulness submitted by the firm unconvincing. It appears that, under the impression that the gas was a new preparation, investigators have used it on patients without preliminary work on animals; at least such work was not reported in the available data. Among the various conditions treated with Octozone are furunculosis, varicose ulcer, fibrositis, ulcerative colitis, sciatica, "rheumatism," subphrenic abscess, osteomyelitis, cystitis, hemorrhoids, and Oxyuris vermicularis infestation. The use of ozone in the treatment of wounds is not new, and according to some investigators it has a field of therapeutic usefulness, although this is very limited. It appears that the intelligent employment of ozone may yet find for it a therapeutic niche. But such use as it has so far received under the name "Octozone," cannot but further discredit the employment of this oxidizing agent in the treatment of disease. The Council declared Octozone unacceptable for New and Nonofficial Remedies because, according to the available evidence, it is the well known ozone marketed under a proprietary name with extravagant, unwarranted and even dangerous therapeutic claims. (Jour. A. M. A., February 24, 1934, p. 605).

Felsol.—According to a brochure entitled "Contribution to the Therapy of Bronchial Asthma," by Dr. M. Kaercher, the composition of Felsol is now given as: Metozin 0.9 (Phenazone 0.25, Anilipyrine 0.4, Iodpyrin 0.24), Caffeine 0.1, digitalis and strophanthus glucosides 0.0015, and the alkaloid lobelia inflata 0.005 Gm. Tests made some time ago in the A.M.A. Chemical Laboratory indicated that the product contained an acetanilid derivative in addition to other products. The substance may be looked on as a shotgun type of mixture promoted in typical "patent medicine" style. (Jour. A.M.A., Febrbuary 24, 1934, p. 60).

Alpha-Dinitrophenol.—A Metabolic Stimulant.—A year has elapsed since alpha-dinitrophenol was introduced into therapeutics as a metabolic stimulant by Tainter and his collaborators of the Stanford University. Considering the potency of the drug, few untoward results or accidents have been reported. The only definite side-action from the therapeutic use of the drug is a skin rash, which occurs in about one out of every fifteen cases. The rash is uncomfortable for a few days and then disappears without sequelae. There have been no deleterious effects observed so far on the kidneys, but rather the contrary. Likewise the liver appears not to be damaged. The introduction of dinitrophenol into therapeutics has aroused widespread interest in metabolic stimulants in general, and in substitutes for this drug, in particular. Already certain British workers are proceeding to test the therapeutic actions of a related cresol. No information is at hand on the frequency of undesirable effects from this cresol, nor is its clinical toxicity or efficiency established. Therefore the dinitrocresol is still in the experimental stage and not ready for general therapeutic use. In contrast, the past year's experience with dinitrophenol has shown it apparently to be a relatively safe and reliable metabolic stimulant with which the practitioner may obtain therapeutic results. This does not mean that dinitrophenol should be given to every obese patient. In those cases in which diet has failed and thyroid is either not needed or not tolerated, dinitrophenol may be used with good prospects of benefit. However, this agent must be used only under carefully controlled conditions and with due regard for the

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possibility that more extensive use may bring to light as yet unsuspected toxic effect. (Jour. A.M.A., February 17, 1934, p. 542).

K-M Infra Red Ray Lamp, Table Model No. 630, Not Acceptable.—The Council on Physical Therapy reports that the Infra Red Ray Lamp, Table Model No. 630, manufactured by the Knapp-Monarch Company, Belleville, Ill., resembles a reading lamp in outward appearance, the difference being that an electrical heating element takes the place of an electric bulb. The element draws about 300 watts on a 110 volt circuit on either alternating or direct current. The Council finds little difference, if any, in therapeutic effect between this infra-red ray lamp and an ordinary bathroom heater. The advertising lists thirty-one so-called "Common Ills" for which there are given suggested methods of treatment. Among other misleading indications for the therapeutic use of infra-red rays, the firm lists the following diseases: angina pectoris, asthma, biliousness, heart disease, itch and delayed menstruation. The Council is not in possession of critical evidence to support these unwarranted suggested indications for the therapeutic employment of infra-red radiations. Promotional advertising matter of this kind in effect constitutes an appeal to the public with arguments that are unscientific and may harmfully promote a feeling of false security on the part of the public. The Council on Physical Therapy declared the K-M Infra-Red Ray Lamp, Table Model No. 630, unacceptable for inclusion in the Council's list of accepted devices. (Jour. A.M.A., February 3, 1934, p. 372).

Nutro Not Acceptable.—The Committee on Foods reports that the Nutravena Company, Battle Creek, Mich., submitted a cooked mixture of roasted peanuts, wheat gluten, and sodium chloride (proportions not known) called "Nutro. A Highly Nourishing Nut and Grain Food." The advertising unjustifiably ascribes special health values to this ordinary peanut and wheat gluten mixture and falsely alleges that it is more nourishing and "healthier" than meat and that meat is harmful, producing "pimples or facial blemishes," containing poisonous bacteria . . . uric acid . . . and ptomaine poison." It is incorrectly described as containing "choice nut meats and full cereal grains." The product is not "rich in vitamins" (implying all the vitamins) or "all body-building essentials." The company advised in a general way that new advertising would conform to requirements of the Committee and that it is not its "desire to put misleading advertising out to take advantage of the gullible and uninformed." The new label for the product, however, carries the claims given above. No descriptive statement identifying the ingredients of the product accompanies the trade name. The company has ignored requests that it demonstrate that its present advertising complies with the requirements of the Committee. This product will therefore not be listed among the Committee's accepted foods. (Jour. A.M.A., Febrbuary 10, 1934, p. 456).

Dinitrophenol Poisoning.—Two more case of sudden death from poisoning with dinitrophenol have been reported in The Journal, April 7, 1934, p. 1141; ibid, p. 1147. The authors review the available literature on the subject, which would seem to indicate that the drug is treacherous and that its administration, as has been previously emphasized in The Journal, should invariably be under the control of a physician. As is usual with any drug

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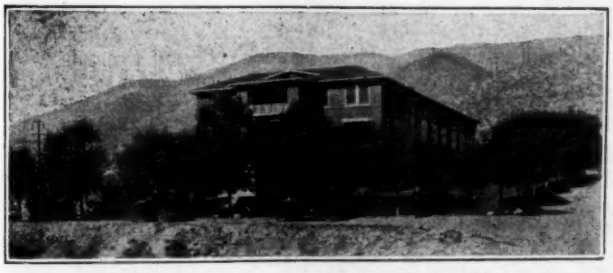

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used for cosmetic purposes, commercial interests have promptly entered the field of exploitation of dinitrophenol. There is not the slightest doubt that vast numbers of people are taking this preparation both with and without the advice of their physicians. Physicians who administer the drug to their patients should inform them thoroughly concerning such dangerous manifestations as increased temperature, severe urticaria and pruritus, and recommend immediate discontinuance of the preparation on the appearance of any symptoms of this character. (Jour. A.M.A., April 7, 1934, p. 1156).

VENEREAL DISEASE INFORMATION

For a number of years the U. S. Public Health Service has been publishing, for the information of physicians, health officers, and others, a monthly abstract journal known as "Venereal Disease Information." This publication contains usually one original article on a subject of general interest in connection with the venereal diseases and numerous abstracts from the current literature pertaining to these diseases. In the preparation of this abstact journal more than 350 of the leading medical journals of the world are reviewed and abstracts made of the articles on this subject.

The cost of "Venereal Disease Information" is only fifty cents per annum, payable in advance to the Supernitendent of Documents, Government Printing Office, Washington, D. C. It is desired to remind the reader that this nominal charge represents only a very small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its program with State and local health departments directed against the venereal diseases.

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Illustrated is a Camp Postoperative and General Support (Model 583). Its use is indicated after parturition, after operations, such as stomach, gall bladder and other high incisions, in umbilical and ventral hernia and during long periods of convalescence.

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